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EXECUTIVE VICE PRESIDENT
NUCLEAR

102-02385-WFC/DLK
December 31, 1992

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

Dear Sirs:

Subject: Palo Verde Nuclear Generating Station (PVNGS)
Units 1, 2, and 3
Docket Nos. STN 50-528/529/530
Reply to Notice of Violations 50-528,529,530/92-36-01, 50-530/92-36-03 and
50-528/92-36-04
File: 92-056-026; 92-070-026

Arizona Public Service Company (APS) has reviewed NRC Inspection Report 50-528,529, 530/92-36 and the Notice of Violations, dated December 4, 1992. Pursuant to the provisions of 10 CFR 2.201, APS' responses are enclosed. Enclosure 1 to this letter is a restatement of the Notice of Violations. APS' responses are provided in Enclosure 2. APS' position with regard to violations 50-530/92-36-03 and 50-528/92-36-04 were discussed with Mr. M. J. Royack on December 8, 1992, during a re-exit for this inspection.

The letter transmitting the Notice of Violations requested APS to document the specific action taken and any additional actions planned to assure all personnel know and understand APS' expectations of procedural compliance. Enclosure 3 discusses these actions and provides additional information with regard to management oversight of the check valve program.

Should you have any questions, please contact Thomas R. Bradish at (602) 393-5421.

Sincerely,

James M. Levine
for WFC

WFC/DLK/pmm

Enclosures:

- Enclosure 1 - Restatement of Notice of Violations
- Enclosure 2 - Reply to Notice of Violations
- Enclosure 3 - Response to Procedure Compliance Concerns

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ENCLOSURE 1

RESTATEMENT OF NOTICE OF VIOLATIONS 50-528,529,530/92-36-01, 50-530/92-36-03
AND 50-528/92-36-04
NRC INSPECTION CONDUCTED OCTOBER 19 - NOVEMBER 6, 1992
INSPECTION REPORT NOS. 50-528,529, AND 530/92-36

**RESTATEMENT OF NOTICE OF VIOLATIONS 50-528,529,530/92-36-01, 50-530/92-36-03
AND 50-528/92-36-04**

During an NRC inspection conducted during the weeks of October 19 and November 2, 1992, three violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Action," 10 CFR Part 2, Appendix C, the violations are listed below:

A. Violation 50-528,529,530/92-36-01 Inservice Testing

Technical Specification 4.0.5 states in part that, "...inservice testing of ASME Code Class 1, 2, and 3 pumps and valves will be performed in accordance with ... Section XI of the ASME Boiler and Pressure Vessel Code and Addenda. ..."

Licensee drawing number 13-M-CHP-002, Revision 31, "P and I Diagram Chemical and Volume Control System," identifies Boric Acid Makeup Pump Discharge Check Valves CHN-V154 and CHN-V155 as Class Q1C equipment. Class Q1C is the licensee designation for safety related, seismic Class 1, ASME Class 3 equipment.

Contrary to the above, on November 3, 1992, the NRC inspectors identified that boric acid makeup pump discharge check valves CHN-V154 and CHN-155 were not in the licensee's Inservice Testing (IST) Program and were not being tested individually in accordance with Section XI of the applicable ASME Boiler and Pressure Vessel Code and Addenda.

This is a Severity Level IV violation (Supplement I), applicable to Units 1, 2, and 3.

B. Violation 50-530/92-36-03 Corrective Action

10 CFR Part 50, Appendix B, Criterion XVI states in part that, "Measures shall be established to assure that conditions adverse to quality, such as. . . deviations. . . and nonconformances are promptly identified and corrected."

Section 8.4.2 of Revision 6 of licensee procedure 73TI-9ZZ19 states in part that "... (an EER [Engineering Evaluation Request] per 73AC-0EE01 for non-quality related items) shall be initiated for all items reflecting an unacceptable condition."

Section 8.5.2 of Revision 4 of licensee procedure 73TI-9ZZ18 states in part that "For all quality related items reflecting an unacceptable condition an MNCR [Material Non-Conformance Report] per 60AC-0QQ01 should be initiated, and for all non-quality related items an EER [Engineering Evaluation Request] per 73AC-0EE01 should be initiated."

Pacific Valves drawing number 7-509-B (Licensee drawing number P222B-141-4) identified auxiliary feedwater pump AFN-P01 discharge check valve 3PAFN-V012 bonnet cap screws, piece 2, material as ASTM A193, Grade B7.

Section A-A of Revision 5 of licensee drawing 13SI-241-H-007 identified mechanical snubber support 3SI-241-007 as size 3, Class Q1B equipment, with an assigned load equal to 8308 pounds. Class Q1B is the licensee designation for safety related, seismic Class 1, ASME Class 2 equipment.

Contrary to the above:

- As of November 2, 1992, an engineering evaluation request was not initiated following licensee identification of unacceptable conditions identified during a visual examination of auxiliary feedwater pump AFN-P01 discharge check valve 3PAFN-V012 per procedure 73TI-9ZZ19 on April 11, 1991. The licensee's examination identified that the internal disc hinge bracket cap screw lock plate tabs were not properly bent up to lock the cap screws in place and the external bonnet cap screws were not ASTM A193, Grade B7 material or equivalent.
- As of November 5, 1992, neither an MNCR nor an EER was initiated following the licensee identification of an unacceptable condition of mechanical snubber support 3SI-241-007 during a visual examination on October 7, 1992. The visual examination identified that according to its label plate, snubber 3SI-241-007 was rated for 6000 pounds, which was less than its assigned load of 8308 pounds.

This is a Severity Level IV Violation (supplement 1), applicable to Unit 3.

C. Violation 50-528/92-36-04, Procedural Compliance

Technical Specification 6.8.1 states in part that, "Written procedures shall be established, implemented, and maintained covering. . . applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978. . . ." Appendix A of Regulatory Guide 1.33 specifies procedures for procedure adherence in performing inspections and maintenance.

Section 8.2.2 of Revision 6 of licensee Procedure 73TI-9ZZ19, "Visual Examination of Pump and Valve Internal Surfaces," states in part that, "For [check valve] examinations all internal parts and surfaces shall be examined per Appendix B, as applicable."

Contrary to the above on March 29, 1992, the licensee performed a visual examination of check valve 1PSGE-V003 per Revision 6 of Procedure 73TI-9ZZ19 and did not examine all internal parts and surfaces per Appendix B.

This is a Severity Level IV Violation (supplement 1), applicable to Unit 1.

ENCLOSURE 2

REPLY TO NOTICE OF VIOLATIONS 50-528,529,530/92-36-01, 50-530/92-36-03 AND
50-530/92-36-04

NRC INSPECTION CONDUCTED OCTOBER 19 - NOVEMBER 6, 1992

INSPECTION REPORT NOS. 50-528,529 AND 530/92-36

REPLY TO NOTICE OF VIOLATION (A) 50-528,529,530/92-36-01

Reason for the Violation

The reason for the violation has been determined to be that a safety function, provided by the Boric Acid Makeup Pump Discharge Check Valves CHN-V154 and CHN-V155, was not recognized when the Inservice Testing (IST) Program was developed. CHN-V154 and CHN-V155 were originally excluded from the IST Program based on the fact that the Boric Acid Makeup Pumps receive non-class 1E power and, as such, the pumps and their associated check valves (CHN-154 and CHN-V155) would not be subject to ASME Section XI testing requirements. However, it was not recognized that since CHN-V154 and CHN-V155 are located in one of the gravity feed boration flow paths defined in the Technical Specification Limiting Conditions for Operation (LCO), section 3.1.2.2, these check valves provide a safety function in that they are required to open when in use as a boron injection flow path per LCO 3.1.2.2 during boration operations. As such, CHN-V154 and CHN-V155 should have been included in the IST Program.

Corrective Actions Taken and Results Achieved

Condition Report/Disposition Request 920679 was initiated to determine whether there is adequate assurance that CHN-V154 and CHN-V155 are capable of performing their intended safety function. The review determined that surveillance test 4(x)ST-(x)CH04 verifies operability of a boron injection flow path by testing flow through CHN-V154 and CHN-V155 in parallel.

Additionally, CHN-V154 and CHN-V155 are each partially stroked in surveillance test 74ST-9CH01. While not all testing requirements of the ASME Section XI code are met during these tests, each check valve is individually tested and it is demonstrated that the check valves in parallel will pass the required flow for the boron injection flow path to be considered operable. Additionally, three boric acid makeup pump discharge check valves (there are six total, two per unit) were recently disassembled and inspected as part of the PVNGS Check Valve Inspection Program. No check valve degradation was identified. Based on the satisfactory performances of 4(x)ST-(x)CH04, 74ST-9CH01, and the results of the recently performed check valve inspections, APS is confident that CHN-V154 and CHN-V155 are capable of performing their safety function.

Corrective Actions That Will Be Taken to Avoid Further Violations

APS is evaluating an alternate gravity feed boron injection flow path that will satisfy LCO 3.1.2.2. This alternate path does not include the Boric Acid Makeup Pumps or their associated check valves (CHN-V154 and CHN-V155). If the alternate flow path proves acceptable, the governing surveillance tests will be revised to demonstrate operability and compliance with LCO 3.1.2.2. If the alternate flow path is unacceptable, CHN-V154 and CHN-V155 will be added to the IST Program. Additionally, any other valves in the gravity feed boron injection flow path that require ASME Section XI testing, will be added to the IST Program.

Regardless of which option is used, all affected program and surveillance procedures will be revised to incorporate required ASME Section XI testing by June 30, 1993.

Date When Full Compliance Will Be Achieved

Full compliance will be achieved in Units 1, 2, and 3 when either 1) CHN-V154 and CHN-V155 are incorporated into the IST Program and tested in accordance with the requirements of ASME Section XI by the end of Refueling Outage 4, or 2) an alternate gravity feed boron injection flow path is verified operable and in compliance with LCO 3.1.2.2. Units 1, 2, and 3 are currently scheduled to complete Refueling Outage 4 November 14, 1993, May 24, 1993, and April 19, 1994, respectively.

REPLY TO NOTICE OF VIOLATION (B) 50-530/92-36-03

Reason For The Violation

APS denies the violation.

Notice of Violation 50-530/92-36-03 cites two examples where APS identified unacceptable conditions while performing visual examinations. These conditions were corrected during the course of work in accordance with the guidance provided in the PVNGS Work Control and Corrective Action Programs. At no time did a significant condition adverse to quality exist and in each case cited, the unacceptable conditions were properly documented and corrected.

In the first example, a visual examination was conducted on 3PAFN-V012 (a non-quality related check valve) in accordance with 73TI-9ZZ19, Revision 6, "Visual Examination of Pump and Valve Internal Surfaces." The examination report identified that the internal hinge bracket cap screws did not have their locking device tabs bent up to lock the cap screws in place and that the existing external bonnet cap screws were not made from the design specified material. The visual examination procedure, 73TI-9ZZ19, provides direction to initiate an Engineering Evaluation Request (EER) per 73AC-0EE01, Revision 1, "Engineering Evaluation Request." The check valve inspection administrative control procedure, 73AC-0X103, Revision 1, "Preventive Maintenance of Check Valves," requires an EER to be written to document and disposition "deficiencies" noted during an examination or questions relating to the operability of a valve. A "deficiency" is defined, in section 4.0 of 73AC-0X103, as "Any condition of a component that deviates from the design to such a degree that impedes that components ability to accomplish

its intended function." By definition, the conditions identified were not "deficiencies," because there were no questions regarding the component's ability to accomplish its intended function. The conditions identified were documented in the work order package, and 3PAFN-V012 was returned to its design configuration in accordance with the Work Control Program. These actions were consistent with the EER procedure which provided guidance to invalidate an EER if the problem could be resolved by an alternate method.

Given that 1) the check valve was non-quality related, 2) Engineering was present on the job, 3) the unacceptable conditions were evaluated by Engineering, 4) the bolt screws do not maintain the pressure boundary or affect the operation of the check valve, 5) the cap screws normally locked in place by bending up the locking device tabs were found torqued, and 6) the unacceptable conditions did not meet the definition of "deficiencies," APS considers the action taken appropriate.

In the second example, a visual examination was conducted on 3SI-241-H007 (a quality class snubber), and the results were documented on Inservice Inspection (ISI) Report 92-3258. The evaluation block was marked "reject" on the ISI Report. The reason for the rejection was a loose nut and bolt. This condition was documented on Material Nonconformance Report (MNCR) 92-SI-3118 and subsequently reworked and accepted on ISI Report 92-3262 (dated October 10, 1992).

The initial ISI Report (92-3258) contained a note, which read, "design load on snubber reads 6000 lbs, load on drawing reads 8308 lbs." This apparent discrepancy was clarified by the APS

Snubber Engineer and documented on ISI Report 92-3258. Stress calculation 13-MC-SI-501 identifies the maximum calculated stress loads under various accident conditions. The worst case condition, Level D, is 8308 lbs. The design drawing, 13SI-241-H007, Revision 5, reflects this worst case maximum calculated design stress load (8308 lbs). As documented in APS specification 13-PN-209 (the subject snubber's procurement specification), snubber 3SI-241-H007 has a maximum load capacity of 10385 lbs. The qualified load rating for 3SI-241-H007 under accident conditions A and B is 6000 lbs, which is the nominal design load rating. The nominal design load rating (6000 lbs) is stamped on the snubber nameplate. Since no deviation existed between the snubber nameplate, the design drawing, or the stress calculation, no MNCR or EER was warranted.

Contrary to Inspection Report 92-36, section 4.3, paragraph 5, an MNCR was initiated to document the nonconforming condition (the loose bolt and nut) identified on ISI Report 92-3258. The nonconforming condition was reworked and accepted on ISI Report 92-3262.

APS considers the action taken to resolve the nonconforming condition and the questions that arose during the snubber inspection appropriate.

Based on the facts surrounding these two examples, APS denies the violation.

Corrective Actions Taken and Results Achieved

Condition Report/Disposition Requests (CRDR) 320525 and 320572 were initiated to investigate and evaluate the examples cited in the Notice of Violation. No evidence was found during the investigation to substantiate a failure by APS to comply with 10 CFR 50, Appendix B, Criterion XI, or to provide appropriate management oversight.

Corrective Actions That Will Be Taken To Avoid Further Violations

None required.

Date When Full Compliance Will Be Achieved

Full compliance was achieved at all times.

REPLY TO NOTICE OF VIOLATION (C) 50-528/92-36-04

Reason for the Violation

APS denies the violation.

The Notice of Violation cites an example where APS decided not to examine all internal parts and surfaces of check valve 1PSGE-V003 while performing 73TI-9ZZ19, Revision 6, "Visual Examination of Pump and Valve Internal Surfaces." The examination report, 92-122, indicated the Freedom of Movement portion of the inspection was "NA" because the disc was not moved due to its size and weight. As a result, some valve internals were not accessible for visual inspections and were also marked "NA" on the examination report.

1PSGE-V003 (Steam Generator Economizer Check Valve) is a 24-inch tilting disc check valve. To perform an inspection on all internal parts and surfaces, rigging must be installed to move the disc. The plant was not designed to accommodate rigging to support inspections on the steam generator economizer check valves and as such, when corrective maintenance is necessary, a special lift point needs to be installed to rig out the disc. Based on the satisfactory results from internal examinations previously performed on three check valves in the "same service" (Steam Generator Downcomer Check Valves), and the requirement to reverse flow test the check valve following the inspection (completed under Surveillance Test Work Order 00508221), rigging the disc out to facilitate a complete valve internal inspection was not warranted.

The visual examination procedure, 73TI-9ZZ19, recognizes that complete ASME Section XI check valve examinations, in some cases, are not practical. For this reason, the purpose of the procedure specifically states in paragraph 1.3, "This procedure also implements the "Check Valve" examinations required by SOER 86-03. Although these valves are not required to be examined in accordance with ASME Section XI they will be examined by taking guidance from the ASME Section XI requirements." Appendix B of 73TI-9ZZ19 contains all ASME Section XI check valve inspection criteria. The administrative control procedure, 73AC-0XI03, "Preventive Maintenance of Check Valves," and the implementing procedure, 73TI-9ZZ19, both contain provisions for not performing inspection steps that are not practical or meaningful. Engineering determined that rigging out the disc to check for freedom of movement and perform a visual inspection of the remaining valve internals was not practical and would not provide additional meaningful data. In accordance with the provisions of the governing procedures and in keeping with the purpose of 73TI-9ZZ19, specific checklist items were marked "NA".

APS procedures were complied with during the visual examination of 1PSGE-V003. The example cited in the Notice of Violation does not constitute a violation of Technical Specification 6.8.1.

Corrective Actions Taken and Results Achieved

Condition Report/Disposition Request (CRDR) 320573 was initiated to investigate and evaluate the example cited in the Notice of Violation. No evidence was found during the investigation to

substantiate a failure by APS to comply with Technical Specification 6.8.1 or to provide appropriate management oversight.

Corrective Actions That Will Be Taken To Avoid Further Violations

None required.

Date When Full Compliance Will Be Achieved

Full compliance was achieved at all times.

ENCLOSURE 3

RESPONSE TO PROCEDURE COMPLIANCE CONCERNS

RESPONSE TO PROCEDURE COMPLIANCE CONCERNS

The letter transmitting the Notice of Violations requested APS to document the specific action taken and any additional actions planned to assure all personnel know and understand APS' expectations of procedural compliance.

As discussed in the responses to two of the violations in Enclosure 2, APS' conclusion was that procedures were indeed followed and no specific action is necessary at this time.

Nevertheless, APS intends to continue to place a high degree of emphasis on not only procedural compliance but the entire issue of human performance. One of the activities currently in process is a strategy to increase "sensitivity" to issues critical to nuclear safety. This strategy, as part of the Strategic Integration Plan, is intended to improve PVNGS culture by assisting management in using expectations, tools, and accountability to strike the proper balance between managing people and managing technical issues. A team has been assembled that consists of Frontline as well as Management personnel. This team is currently looking at communications barriers. In January, the team will be addressing a communication plan that will include a human error reduction strategy. It is expected that the communication efforts, enhanced by Frontline representation, will result in a reduction of human performance errors through a change in culture.

It was the conclusion of the Inspection Team that management oversight of the check valve program could be improved. The team did not, however, fully acknowledge management's involvement in various aspects of the check valve program implementation. Examples of management involvement include:

1. Establishment of maintaining an engineering position solely for the administration of the SOER 86-03 program.
2. Integration of the IST and check valve engineering positions under the same supervisor to ensure implementation of a comprehensive check valve program.
3. Long standing leadership with the Nuclear Industry Check Valve Group (NIC) through steering committee membership and technical presentations.
4. Research and testing required for the recently approved ASME Valve Relief Request for the Safety Injection Tank Discharge check valves.

APS acknowledges that management oversight can always be improved however, APS believes that it is moving in a positive direction.