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ACCESSION NBR: 9305200266 DOC. DATE: 93/05/14 NOTARIZED: NO DOCKET #  
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 STN-50-530 Palo Verde Nuclear Station, Unit 3, Arizona Publi 05000530  
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 RECIP. NAME RECIPIENT AFFILIATION  
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SUBJECT: Forwards request for enforcement discretion from TS LCO  
 3.7.9 to allow one or more snubbers on any sys to be  
 inoperable for max of 72 h. Discretion requested until  
 emergency TS change can be processed & approved.

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**Arizona Public Service Company**  
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JAMES M. LEVINE  
VICE PRESIDENT  
NUCLEAR PRODUCTION

102-02512-JML/TRB/BAG  
May 14, 1993

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
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Washington, DC 20555

Dear Sirs:

**Subject: Palo Verde Nuclear Generating Station (PVNGS)**  
**Units 1 and 3**  
**Docket No. STN 50-528 and 50-530**  
**Request for Notice of Enforcement Discretion**  
**93-055-026**

Arizona Public Service Company (APS) hereby requests a Notice of Enforcement Discretion from the PVNGS Unit 1 and Unit 3 Technical Specifications (TS) Limiting Condition for Operation (LCO) 3.7.9. The existing TS LCO ACTION allows for one or more snubbers on any system to be inoperable for a maximum of 72 hours. If the snubber(s) have not been returned to an operable status the applicable system shall be declared inoperable and the appropriate ACTION statement for that system will be followed.

On May 12, 1993, during discussions between APS and the NRC regarding Technical Specification (TS) Surveillance Requirement (SR) 4.7.9.e, it was determined that APS' current interpretation and implementation of TS 4.7.9 did not meet the surveillance requirement. Subsequently, PVNGS Units 1 and 3 entered the ACTION statement for TS LCO 3.7.9, at approximately 1330 MST on May 12, 1993.

APS is requesting the NRC to exercise discretion in not enforcing compliance with the ACTION statement of TS LCO 3.7.9 until an Emergency TS change can be processed and approved. Otherwise, an unnecessary plant shutdown to Mode 5 would be required after 72 hours, in accordance with TS 3.0.3, due to multiple systems being inoperable as a result of not meeting TS 4.7.9. The Plant Review Board has reviewed this request for Notice of Enforcement Discretion and determined that the exercise of discretion for the period of time required to process and approve an Emergency TS amendment does not constitute an unreviewed safety question or create a nuclear safety hazard.

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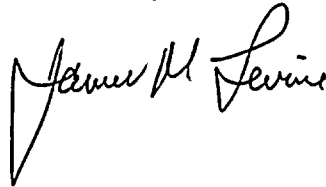


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Page 2

Pursuant to 10 CFR 50.91(b)(1), a copy of this request is being forwarded to the Arizona Radiation Regulatory Agency.

If you have any questions, please contact Thomas R. Bradish, Manager, Nuclear Regulatory Affairs, at (602) 393-5421.

Sincerely,

A handwritten signature in cursive script, appearing to read "James M. Levine".

JML/TRB/BAG/rv

Enclosure

cc: J. B. Martin  
C. M. Trammell  
J. A. Sloan  
W. F. Conway



**REQUEST FOR EXERCISE OF ENFORCEMENT DISCRETION  
FOR COMPLIANCE WITH LIMITING CONDITION FOR  
OPERATION 3.7.9**

**Description of Condition**

On May 12, 1993, during discussions between APS and the NRC regarding Technical Specification (TS) Surveillance Requirement (SR) 4.7.9.e, it was determined that APS' current interpretation and implementation of TS 4.7.9 did not meet the surveillance requirement. Subsequently, PVNGS Units 1 and 3 entered the ACTION statement for Limiting Condition for Operation (LCO) 3.7.9, at approximately 1330 MST on May 12, 1993.

The PVNGS Snubber Testing Program is described in Administrative Control Procedure 73AC-9ZZ01 "Testing and Control of PVNGS Snubbers." This procedure describes five (5) snubber groups as follows:

- PSA 1/4 and 1/2 size Mechanical Snubbers (small)
- PSA 1, 3, and 10 size Mechanical Snubbers (medium)
- PSA 35 and 100 size Mechanical Snubbers (large)
- Steam Generator Hydraulic Snubbers
- Reactor Coolant Pump Hydraulic Snubbers

**Mechanical Snubbers**

PVNGS implemented the mechanical snubber testing program by treating all mechanical snubbers as one (1) type with three (3) groups; small, medium, and large. PVNGS believed this was a correct interpretation since all mechanical snubbers at PVNGS are Pacific Scientific Arresters (PSA) and utilize the same design principles of operation. Based on this interpretation, a representative sample (37) of snubbers was chosen from the three (3) groups of mechanical snubbers. This is contrary to the NRC interpretation of TS SR 4.7.9.e, received on May 12, 1993, which requires a representative sample be chosen from each snubber type, with type being defined by "of the same design and manufacturer, irrespective of capacity." PVNGS did not expand the scope of population for mechanical snubbers as required when failures occurred as explained below in sample selection section.

**Hydraulic Snubbers**

For hydraulic snubbers, PVNGS did not identify, nor differentiate from mechanical snubbers, to the Regional Administrator that a test plan in



accordance with TS SR 4.7.9.e.1, would be implemented even though our procedure implemented a test plan which was essentially in accordance with 4.7.9.e.1. Each unit has 12 hydraulic snubbers, four (4) Steam Generator (SG) and eight (8) Reactor Coolant Pump (RCP). If TS SR 4.7.9.e.2, as docketed to the Regional Administrator, had been implemented, all 12 hydraulic snubbers would be required to be tested each outage. PVNGS tested only one of each type (2 total) during each outage. This testing method would meet TS SR 4.7.9.e.1, with the exception of random sample selection.

### **Sample Selection**

TS SR 4.7.9.e, requires that a representative random sample of snubbers of each type be chosen each testing period. The selection of mechanical snubbers for testing at PVNGS was representative but not completely random. PVNGS initiated an ASME approved method of selection identified in ASME 1990 Subsection ISTD. Each time a snubber was tested satisfactorily, it was removed from the population of snubbers eligible for selection during the next testing period. The selection process was random for the snubbers remaining to be tested but did not include the entire snubber population. This method is preferred because it ensures all snubbers will be tested. However, this selection method did not meet the TS requirement.

For hydraulic snubbers, each outage a SG snubber was selected for testing so that in 4 outages, the entire population of SG snubbers would be tested. An RCP adjacent to the SG, which had not had its snubbers tested, would have 1 of its 2 snubbers selected for testing. This was done to ensure all snubbers would be tested and to allow the use of ALARA considerations for personnel exposure. Nevertheless, this selection method did not meet TS requirements.

In accordance with TS 4.0.3, failure to perform a surveillance requirement constitutes noncompliance with the OPERABILITY requirements for a LCO and requires the entry into the associated ACTION statement. As discussed above, PVNGS entered the ACTION statement for TS 3.7.9 at approximately 1330 MST on May 12, 1993. This 72 hour action period ends at approximately 1330 MST on May 15, 1993, at which time PVNGS Units 1 and 3 would be required to shutdown in accordance with TS 3.0.3.

Therefore, APS is requesting the NRC to exercise discretion in not enforcing compliance with the ACTION statement of TS 3.7.9. Otherwise, a plant shutdown would be required after 72 hours in accordance with TS 3.0.3 due to multiple systems being inoperable as a result of not meeting the snubber surveillance testing requirements. This exercise of discretion is requested to remain in effect until such time as an Emergency Technical Specification change can be processed and approved.





## Safety Basis

APS Engineering personnel have completed an in depth review of the previous snubber testing conducted at PVNGS Units 1, 2, and 3 and have concluded that:

- During the most recent test periods in Units 1 and 3 the number of hydraulic and mechanical snubbers tested would have met the sampling requirements of TS SR 4.7.9.e.1, for all types of snubbers except the "small" mechanical type in Unit 3.
- Based on industry standards and license amendments which have been approved at other utilities, an acceptable confidence level can be achieved utilizing a sample plan which chooses a initial size of 10 percent of each type of snubber and for each failure of a given type the sample is expanded 5 percent for that type. During the most recent test period in Unit 3, the small mechanical snubbers would have met the sampling requirements of such a plan based on the initial snubber population.
- The number of hydraulic snubbers sampled and tested during the test periods in Units 1 and 3 has always met the requirements of TS SR 4.7.9.e.1, with the exception of random sampling.
- The sampling methodology utilized for the 4.7.9.e.2 requirement at PVNGS is consistent with ASME 1990 Subsection ISTD.
- For all previous test periods, the percentage of mechanical snubbers of each type that were tested in Units 1 and 3 at least once are listed below:

Unit 1		Unit 3	
Small	100%	Small	64.9%
Medium	53.7%	Medium	56.3%
Large	100%	Large	67.6%

- Unit 2's current surveillance testing for mechanical snubbers meets the requirements of 4.7.9.e.2 and for hydraulic snubbers meets requirements for 4.7.9.e.1 with the exception of randomness.
- A total of 70 of approximately 1,600 snubbers tested in all 3 Palo Verde units have failed to meet the snubber functional test acceptance criteria during all test periods. Piping stress analysis for each failure showed that for 65 of the 69 failures, piping met ASME code allowable stresses. In each of the 4 other cases, component evaluations concluded that no damage resulted from the imposed stress.



### **Safety Significance**

APS concludes that there is no significant safety implication to the operation of PVNGS Units 1, 2, and 3 as a result of the noncompliance with TS SR 4.7.9. The purpose of snubbers is to protect the piping systems during seismic events while allowing thermal growth without overstressing the piping. Surveillance testing is performed to assure that the snubbers are capable of performing that function. Based on analysis of previous Palo Verde testing results, sufficient testing was performed to ensure that snubbers are capable of performing their intended function. For snubbers not meeting the acceptance criteria during testing, stress calculations have been performed to determine if imposed stresses were in excess of code allowable with the snubbers in the as-found condition. These calculations and inspection of the exceptions proved that the piping was not overstressed. The fact that the piping was not overstressed shows that the snubbers, while degraded, did not challenge the operability of piping or components.

Although the testing of snubbers was not performed in a random manner, APS Engineering evaluation has determined that the testing conducted provides a representative sample of snubber performance.

### **Potential Consequences**

The sampling and testing which was performed provides a reasonable assurance of snubber operability comparable to the sampling and testing described in TS SR 4.7.9.e. Therefore, the consequences are no different than previously analyzed in the PVNGS Updated Final Safety Analysis Report for snubber failures, and the probability and types of failures remain the same.

### **Compensatory Actions**

No compensatory actions are required to implement the requested enforcement discretion.

### **Duration Justification**

The duration of this request shall be of sufficient time to process and approve an emergency Technical Specification amendment to allow compliance as justified within this correspondence.



### **Basis of Conclusion**

APS Engineering compared the failure rate experienced at PVNGS against a survey of 72 reactor sites conducted by the Snubber User Group (SUG). This review showed that for the 72 sites involved, the failure rate is 7.60 percent. The failure rate for plants in Region V is 9.02 percent. Palo Verde results show that the failure rate in Unit 1 is approximately 3.30 percent, Unit 2 is approximately 6.67 percent (including the current outage), and Unit 3 is approximately 4.19 percent. The combined percentage of failure for all snubber testing at PVNGS is 4.38 percent. This is lower than the average failure rate of the 72 sites in the SUG survey.

### **Consequences to the Environment**

APS has determined that the requested Notice of-Enforcement Discretion involves no change in the amount or type of effluent that may be released offsite, and that there is no increase in individual or cumulative occupational radiation exposure. As such, operation of PVNGS Units 1 and 3 in accordance with the proposed enforcement discretion, does not involve an unreviewed environmental safety question.

