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STEWART,W.L. Arizona Public Service Co. (formerly Arizona Nuclear Power

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SUBJECT: Application for amends to licenses NPF-41,NPF-51 & NPF-74,
requesting amend to TS table 3.3-3, "ESF Actuation Sys
Instrumentation."

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WILLIAM L. STEWART
EXECUTIVE VICE PRESIDENT
NUCLEAR

102-03036-WLS/RAB/ZJE
July 12, 1994

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, 2, and 3
Docket Nos. STN 50-528/529/530
Proposed Technical Specification Amendments to
Add One Action Statement to Table 3.3-3, Entry VIII.
File: 94-056-026

Arizona Public Service Company (APS) is requesting an amendment to Technical Specification (TS) Table 3.3-3 "Engineered Safety Features Actuation System Instrumentation". The proposed amendment would enhance the PVNGS TS by adding a Limiting Condition for Operation (LCO) action statement to Entry VIII B of Table 3.3-3. The proposed action statement would enhance safe plant operation by requiring timely plant shutdown, if more than one of the new solid state degraded voltage relays in either train of 4.16 kv is inoperable or not energized. Four new solid state degraded voltage relays are used in each 4.16 kv bus (Train A and Train B) at PVNGS.

Provided in the enclosure to this letter are the following sections which support the proposed TS amendment:

- A. Description of the TS Amendment Request
- B. Purpose of the Technical Specifications
- C. Need for the TS Amendment
- D. No Significant Hazards Consideration Determination
- E. Safety Analysis for the TS Amendment Request
- F. Environmental Impact Consideration Determination
- G. Marked-up TS Pages

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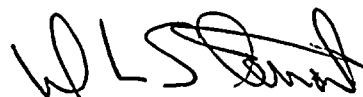
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Proposed TS Amendments to Add
One Action Statement to Table 3.3-3, Entry VIII
Page 2

In accordance with Technical Specification 6.5, the Plant Review Board and the Offsite Safety Review Committee have reviewed and concurred with this request.

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

Should you have any questions, please contact Richard A. Bernier of my staff at (602) 393-5882.

Sincerely,

A handwritten signature in black ink, appearing to be 'WLS' followed by a stylized flourish.

WLS/RAB/ZJE

Enclosure

cc: L. J. Callan
B. E. Holian
K. E. Johnston
K. E. Perkins
A. V. Godwin ARRA

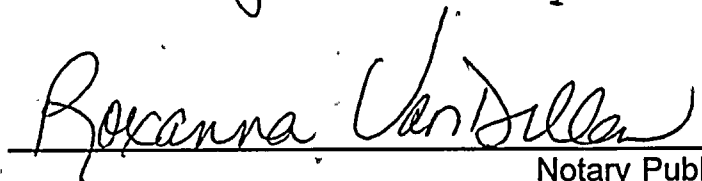
STATE OF ARIZONA)
) ss.
COUNTY OF MARICOPA)

I, W. L. Stewart, represent that I am Executive Vice President - Nuclear, 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 and correct.



W. L. Stewart

Sworn to Before Me This 12th Day of July; 1994.



Notary Public

My Commission Expires

June 12, 1997





ENCLOSURE

PROPOSED TECHNICAL SPECIFICATION AMENDMENTS

TO ADD

ONE ACTION STATEMENT

TO

TABLE 3.3-3, ENTRY VIII

A. DESCRIPTION OF THE TS AMENDMENT REQUEST

This amendment request proposes a Technical Specification (TS) enhancement in which a Limiting Condition for Operation (LCO) action statement is added to Table 3.3-3 "Engineered Safety Features Actuation System (ESFAS) Instrumentation" entry VIII B. This LCO action statement is entered if more than one of the required four solid state degraded voltage relays (input to channels) on either 4.16 kv bus is inoperable or not energized.

B. PURPOSE OF THE TECHNICAL SPECIFICATION

The purpose of TS Table 3.3-3 is to provide a list of ESFAS channels and bypasses matrixed with the corresponding LCO action statements for each channel or input to channel. The ESFAS channels and bypasses in Table 3.3-3 are required to be operable with their trip setpoints set consistent with the values shown in Table 3.3-4 and with response time shown in Table 3.3-5. Entry VIII B in Table 3.3-3 is the only entry affected by this proposed amendment. Entry VIII B on Table 3.3-4 provides trip values for the 4.16 kv buses set at 3744 volts (90 percent of nominal value) with 35 seconds maximum time delay and with a minimum of three operable channels per 4.16 kv bus applicable in modes 1, 2, and 3. Upon ESFAS actuation due to degraded voltage, the appropriate diesel generator is auto-started and is connected to the affected 4.16 kv bus; and the off-site power supply (preferred source) is disconnected from the 4.16 kv bus. To minimize unnecessary DG starts, this proposed amendment includes the criterion of "more than one degraded voltage relay inoperable or not energized ...". The new solid state degraded voltage relays are controlled by 125 vdc power. The status of the power source to these relays is available to the operators in the main control room. Also, the new relays are provided with a local status light indicating relay functionality.

C. NEED FOR TS AMENDMENT

The logic within these four new degraded voltage relays on each of the 4.16 kv buses is supplied with power from 125 vdc power. All four relays on each bus are connected to this single control power source for that bus. These relays fail as-is upon loss of the 125 vdc power control (for example, due to a blown control circuit fuse). Therefore, the existing TS requirement of a minimum of three operable degraded voltage relays per 4.16 kv bus cannot be met when the 125 vdc power source is not available. Consequently, the overly restrictive TS action statement 3.0.3 would be invoked, requiring within one hour action to initiate the placement of the unit in mode 4, in which the specification no longer applies. This one hour

action statement is unnecessarily restrictive when compared with LCO 3.8.3.1a loss of an entire 4.16 kv bus which requires that the inoperable bus be reenergized within eight hours. The loss of monitoring for a degraded voltage condition in each 4.16 kv bus is of lesser safety significance when compared to the loss of the bus itself. Furthermore, even with the loss of all four degraded voltage relays on one 4.16 kv bus, the four loss of voltage relays monitoring that bus would be unaffected, as would be the loss of four degraded voltage relays and four loss of voltage relays monitoring the opposite bus.

Therefore, the proposed TS amendment requires action within eight hours to restore/reenergize inoperable degraded voltage relays if more than one relay becomes inoperable. If the required eight hour action statement is not met, the proposed LCO further requires the unit to be placed in Hot Standby within six hours and in Cold Shutdown within the following thirty hours.

D. NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commission has provided standards for determining whether a significant hazards consideration exists as stated in 10 CFR 50.92. A proposed amendment to an operating license for a facility involves a no significant hazards consideration, if operation of the facility in accordance with a proposed amendment would not:

- (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
- (2) Create the possibility of a new or a different kind of accident from any accident previously evaluated; or
- (3) Involve a significant reduction in a margin of safety.

A discussion of the above standards as they relate to this amendment request follows:

Standard 1--Involve a significant increase in the probability or consequence of an accident previously evaluated:

The proposed amendment will add an action statement to TS Table 3.3-3 entry VIII B which would allow eight hours to effect repairs. This action statement would be entered if more than one of the required four degraded voltage relays on either 4.16 kv bus is inoperable or not energized. If the eight hour allowed outage time is not met, the unit is placed in Hot Standby within six hours and in Cold Shutdown within the next thirty hours. Technical Specification 3.8.3.1 currently allows eight hours to restore a 4.16kv bus in the event of a loss of power to that bus. The loss of degraded voltage relays on that bus does not impact plant nuclear safety any more than the loss of the bus itself. Furthermore, even with the

loss of all four degraded voltage relays monitoring one 4.16 kv bus (for example, due to a blown 125 vdc circuit fuse), the loss-of-voltage relays on that bus, and the degraded voltage relays, as well as the loss-of-voltage relays monitoring the other bus would be unaffected. None of the UFSAR chapter 15 accident analyses is affected by this proposed amendment. The existing TS requirements and those components to which they apply are not altered by this TS amendment. There are no changes to the maintenance, surveillance, and/or qualification of any component/function in Table 3.3-3. Therefore, the addition of this proposed eight hour action statement to Table 3.3-3 entry VIII B does not increase the probability of occurrence or the consequences of any previously evaluated accident.

Standard 2--Create the possibility of a new or different kind of accident from any accident previously evaluated:

The TS requirements and the components to which they apply are not altered by this amendment. The new solid state degraded voltage relays in each 4.16 kv bus were installed under the 10 CFR 50.59 change process. APS determined that the installation created no unreviewed safety question. This amendment has no impact on plant maintenance, testing, shutdown equipment, or component qualification. Plant operational safety is enhanced by this amendment. Therefore, the possibility of a new or different kind of accident is not created by this amendment.

Standard 3--Involve a significant reduction in a margin of safety:

The TS does not alter existing TS requirements or those components to which they apply. More specifically, there is no impact on safe plant shutdown, maintenance, containment isolation capability, containment leakage rate, or the operability of safety related valves. Therefore, the addition of the proposed action statement to the TS will not involve reduction in a margin of safety for fission product release to the atmosphere.

E. SAFETY ANALYSIS FOR THE TS AMENDMENT REQUEST

This proposed amendment does not change the existing TS requirements associated with each ESFAS function listed in TS Tables 3.3-3, 3.3-4, and 3.3-5. The probability of occurrence of each previously evaluated accident and the analysed consequences are not increased by this proposed amendment. Also, the possibility of a new or different kind of accident is not created. The margin of safety for fission product release to the atmosphere is not reduced. Therefore, APS has determined that an adequate level of safety exists to support the

operation of Palo Verde Units 1, 2, and 3 with this proposed amendment.

F. ENVIRONMENTAL IMPACT CONSIDERATION DETERMINATION

This proposed amendment does not change the existing TS requirements and restrictions associated with each ESFAS function listed in TS Tables 3.3-3, 3.3-4, and 3.3-5. APS has determined the proposed amendment involves no change in the amount or type of effluent that may be released offsite, and there is no increase in individual or cumulative occupational radiation exposure. As such, operation of Palo Verde Units 1, 2, and 3 in accordance with this proposed amendment does not create an unreviewed safety question.

G. MARKED-UP TECHNICAL SPECIFICATION PAGES

See attached pages 3/4 3-22, 3/4 3-23, and 3/4 3-24 for Units 1, 2, and 3 respectively.