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SUBJECT: Application for amends to licenses NPF-41,NPF-51 & NPF-74, increasing min nitrogen accumulator pressure.

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AA

Arizona Public Service Company
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WILLIAM L. STEWART
EXECUTIVE VICE PRESIDENT
NUCLEAR

102-03009-WLS/RAB/ZJE
June 17, 1994

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
Proposed Amendment to Technical Specification Section 3/4.7.1.6 and Bases for 3/4.7.1.6
File: 94-056-026; 94-005-419.05

Arizona Public Service Company is requesting an amendment to the Surveillance Requirements of Technical Specification (TS) Section 3/4.7.1.6 and the Bases of Section 3/4.7.1.6. The request increases the minimum nitrogen accumulator pressure. The change to the Bases increases the minimum time the Atmospheric Dump Valve accumulators must be operable.

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

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

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

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

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

Sincerely,

WLS/RAB/ZJE/dld

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 17th Day of June, 1994.

Ramona Wright
Notary Public

My Commission Expires

OFFICIAL SEAL
RAMONA WRIGHT
Notary Public - State of Arizona
MARICOPA COUNTY
My Commission Expires Aug. 15, 1997

A WRIGHT
MARICOPA COUNTY

ENCLOSURE

INCREASE IN MINIMUM NITROGEN ACCUMULATOR PRESSURE

FOR THE

ATMOSPHERIC DUMP VALVES (ADVs)

ENCLOSURE

A. DESCRIPTION OF THE PROPOSED AMENDMENT REQUEST

Technical Specification 3/4.7.1.6 minimum nitrogen accumulator pressure is raised from 400 psig to 615 psig due to a change in the Design Basis for the accumulator.

B. PURPOSE OF THE TECHNICAL SPECIFICATION

Technical Specification 3/4.7.1.6 ensures that a minimum number of Atmospheric Dump Valves (ADVs) are available for plant cooldown. The Updated Final Safety Analysis Report (UFSAR) does not credit the ADVs for mitigating the consequences of an accident in the Chapter 15 accident analyses; however, the ADVs are credited for use in cooling down a Unit in the event of a loss-of-offsite power. A loss-of-offsite power would cause a loss of the main condenser as a heat sink. The ADVs in conjunction with the Auxiliary Feedwater System would provide that heat removal function for long-term heat removal and cooldown.

The limitation on minimum nitrogen accumulator pressure is to ensure maintenance of a sufficient volume of nitrogen in the accumulator to operate its associated ADV. A sufficient nitrogen volume is required to operate the ADV in HOT STANDBY plus to allow the unit to reach COLD SHUTDOWN under natural circulation conditions in the event of a failure of the normal control air system.

C. NEED FOR THE TECHNICAL SPECIFICATION AMENDMENT

Arizona Public Service Company (APS) has reanalyzed the Design Basis for nitrogen accumulator sizing. The limiting event is ADV availability to reach COLD SHUTDOWN under natural circulation conditions in the event of failure of the normal control air system. APS substituted operating plant data for the assumptions used by Combustion Engineering in a computer simulation of the cooldown. The data was obtained during Unit 1 post-fuel load Natural Circulation testing. The result of the reanalysis is that the ADVs are required to operate for 13.3 hours versus the previously calculated 10.5 hours. A minimum of 615 psig accumulator pressure is required to ensure ADV availability during a Natural Circulation Cooldown.

D. SAFETY ANALYSIS OF THE PROPOSED TECHNICAL SPECIFICATION AMENDMENT

The UFSAR assumes operation of the ADVs for long term heat removal and cooldown (UFSAR Section 6.3.3.4). The ADVs are not credited in Chapter 15 events until 30 minutes after the initiating event. One ADV per steam generator is assumed available for the duration of the long-term cooling event.

The limitation on maintaining the nitrogen accumulator at a pressure ≥ 615 psig is to ensure that a sufficient volume of nitrogen is in the accumulator to operate the associated ADV. A pressure of 615 psig ensures that there is sufficient nitrogen for 4 hours of operation at HOT STANDBY plus 9.3 hours of operation to reach COLD SHUTDOWN under natural circulation conditions in the event of failure of the normal control air system. The new minimum pressure is based on operating experience rather than theoretical assumptions. Overall there is an increase in safety.

E. NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commission has provided standards for determining whether a no 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 different kind of accident from any accident previously evaluated; or (3) Involve a significant reduction in a margin of safety.

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

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

The proposed Technical Specification change in the nitrogen accumulator supply minimum pressure will not increase the probability or consequences of any accident previously analyzed. The nitrogen accumulator pressure is normally maintained between 650-680 psig. Nitrogen pressure from the accumulator is reduced to 105 psig prior to use in the operation of the ADVs. The pressure reduction will remain the same with the higher minimum accumulator pressure.

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

Increasing the nitrogen accumulator minimum pressure does not create any new or different accidents than those previously evaluated. The normal air supply (the Instrument Air System) to the ADV is maintained between 105 to 125 psig. Currently, nitrogen from the accumulator is reduced to 105 psig prior to use in the ADV. The increased minimum pressure in the accumulator will still be reduced to 105 psig prior to use in the ADV.

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

The limitation on maintaining the nitrogen accumulator at a certain pressure is to ensure that a sufficient volume of nitrogen is in the accumulator to operate the associated ADV. Maintaining a higher minimum pressure ensures that sufficient nitrogen will be available to maintain the unit at HOT STANDBY for 4 hours and an additional 9.3 hours to reach COLD SHUTDOWN under natural circulation conditions in the event of failure of the normal control air system. Therefore, the proposed change does not involve a reduction in a margin of safety.

F. ENVIRONMENTAL IMPACT CONSIDERATION DETERMINATION

The proposed amendment changes the SURVEILLANCE requirements for the ADV.

APS has determined that the proposed amendments involve no change in the amount or type of any 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, 2, and 3 in accordance with the proposed amendment does not involve an environmental impact.

G. MARKED-UP TECHNICAL SPECIFICATION CHANGE PAGES

PVNGS Unit 1	PVNGS Unit 2	PVNGS Unit 3
3/4 7-10	3/4 7-10	3/4 7-10
B 3/4 7-3	B 3/4 7-3	B 3/4 7-3