



10 CFR 50.90

Palo Verde Nuclear
Generating Station

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102-05021-CDM/TNW/RKR
December 18, 2003

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

Reference: Letter 102-05008-CDM/SAB/RKR, dated October 7, 2003, from D. Mauldin, APS, to NRC, "Request for Amendment to Technical Specifications 5.5.6, 'Pre-Stressed Concrete Containment Tendon Surveillance Program' and 5.5.16, 'Containment Leakage Rate Testing Program' "

Dear Sirs:

Subject: Supplement to Provide Updated Technical Specification Pages for the Proposed Operating License Amendment Related to the Pre-Stressed Concrete Containment Tendon Surveillance Program and Containment Leakage Rate Testing Program

In the referenced letter, Arizona Public Service Company (APS) submitted to NRC a request to amend PVNGS Technical Specifications (TS) to update the requirements in the Pre-Stressed Concrete Containment Tendon Surveillance Program and Containment Leakage Rate Testing Program. Since that submittal, the NRC issued Amendment No. 149 for power uprate to PVNGS Unit 2. As a result, proposed TS pages included with the referenced letter for the Pre-Stressed Concrete Containment Tendon Surveillance Program and Containment Leakage Rate Testing Program amendment need to be revised to reflect changes approved in Amendment No. 149.

Enclosed are revised proposed retyped TS pages 5.5-4, 5.5-23, and 5.5-24. These pages include the changes proposed in the referenced letter amendment request and the changes approved in Amendment No. 149 for PVNGS Unit 2. No new TS changes are being proposed by this letter. Please use these pages in place of the pages submitted in the referenced TS amendment request letter. Also provided for information only are updated marked-up TS pages based on Amendment No. 149 pages.

AD17

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Supplement to Provide Updated Technical Specification Pages for the Proposed
Operating License Amendment Related to the Updated Requirements in the Pre-
Stressed Concrete Containment Tendon Surveillance Program and Containment
Leakage Rate Testing Program
Page 2

No commitments are being made to the NRC by this letter.

Should you have any questions, please contact Thomas N. Weber at (623) 393-5764.

Sincerely,



CDM/TNW/RKR/kg

Enclosures:

- Notarized Affidavit
- Revised Proposed Retyped TS Pages 5.5-4, 5.5-23, and 5.5-24
- Updated Marked-Up TS Pages

cc: B. S. Mallett NRC Region IV Regional Administrator
M. B. Fields NRC NRR Project Manager
N. L. Salgado NRC Senior Resident Inspector for PVNGS
A. V. Godwin Arizona Radiation Regulatory Agency (ARRA)

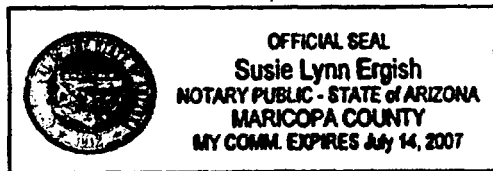
STATE OF ARIZONA)
) ss.
COUNTY OF MARICOPA)

I, David Mauldin, represent that I am Vice President Nuclear Engineering and Support, Arizona Public Service Company (APS), that the foregoing document has been signed by me on behalf of APS with full authority to do so, and that to the best of my knowledge and belief, the statements made therein are true and correct.

David Mauldin
David Mauldin

Sworn To Before Me This 18th Day Of December, 2003.

Susie Lynn Ergish
Notary Public



Notary Commission Stamp

Enclosure 2

**Revised Proposed Retyped
TS Pages 5.5-4, 5.5-23, and 5.5-24**

5.5 Programs and Manuals

5.5.4 Radioactive Effluent Controls Program (continued)

- g. Limitations on the dose rate resulting from radioactive material released in gaseous effluents from the site to areas at or beyond the site boundary:
 - 1. For noble gases: less than or equal to a dose rate of 500 mrems/yr to the total body and less than or equal to a dose rate of 3000 mrems/yr to the skin, and
 - 2. For iodine-131, iodine-133, tritium, and for all radionuclides in particulate form with half-lives greater than 8 days: less than or equal to a dose rate of 1500 mrems/yr to any organ;
- h. Limitations on the annual and quarterly air doses resulting from noble gases released in gaseous effluents from each unit to areas beyond the site boundary, conforming to 10 CFR 50, Appendix I;
- i. Limitations on the annual and quarterly doses to a member of the public from iodine-131, iodine-133, tritium, and all radionuclides in particulate form with half lives > 8 days in gaseous effluents released from each unit to areas beyond the site boundary, conforming to 10 CFR 50, Appendix I; and
- j. Limitations on the annual dose or dose commitment to any member of the public beyond the site boundary due to releases of radioactivity and to radiation from uranium fuel cycle sources, conforming to 40 CFR 190.

5.5.5 Component Cyclic or Transient Limit

This program provides controls to track the UFSAR Section 3.9.1.1 cyclic and transient occurrences to ensure that components are maintained within the design limits.

5.5.6 Pre-Stressed Concrete Containment Tendon Surveillance Program

This program provides controls for monitoring any tendon degradation in pre-stressed concrete containments, including effectiveness of its corrosion protection medium, to ensure containment structural integrity. The program shall include baseline measurements prior to initial operations. The Tendon Surveillance Program, inspection frequencies, and acceptance criteria shall be in accordance with ASME Code Section XI, Subsection IWL of the ASME Boiler and Pressure Vessel Code and applicable addenda as required by 10 CFR 50.55a, except where an exemption or relief has been authorized by the NRC.

The provisions of SR 3.0.3 are applicable to the Tendon Surveillance Program inspection frequencies.

(continued)

5.5 Programs and Manuals (continued)

5.5.15 Safety Function Determination Program (continued)

- b. A required system redundant to system(s) in turn supported by the inoperable supported system is also inoperable; or
- c. A required system redundant to support system(s) for the supported systems (a) and (b) above is also inoperable.

The SFDP identifies where a loss of safety function exists. If a loss of safety function is determined to exist by this program, the appropriate Conditions and Required Actions of the LCO in which the loss of safety function exists are required to be entered.

When a loss of safety function is caused by the inoperability of a single Technical Specification support system, the appropriate Conditions and Required Actions to enter are those of the support system.

5.5.16 Containment Leakage Rate Testing Program

- a. A program shall be established to implement the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR 50, Appendix J, Option B, as modified by approved exemptions. This program shall be in accordance with the guidelines contained in Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program," dated September, 1995, as modified by the following exceptions:
 - 1. The visual examination of containment concrete surfaces intended to fulfill the requirements of 10 CFR 50, Appendix J, Option B testing, will be performed in accordance with the requirements of and frequency specified by ASME Code Section XI, Subsection IWL, except where relief has been authorized by the NRC. The containment concrete visual examination may be performed during either power operation, e.g., performed concurrently with other containment inspection-related activities such as tendon testing, or during a maintenance/refueling outage.
 - 2. The visual examination of the steel liner plate inside containment intended to fulfill the requirements of 10 CFR 50, Appendix J, Option B testing, will be performed in accordance with the requirements of and frequency specified by ASME Code Section XI, Subsection IWE, except where relief has been authorized by the NRC.

(continued)

5.5 Programs and Manuals (continued)

5.5.16 Containment Leakage Rate Testing Program (continued)

- b. The peak calculated containment internal pressure for the design basis loss of coolant accident, P_a , is 52.0 psig for Units 1 and 3, and 58.0 psig for Unit 2. The containment design pressure is 60 psig. |
 - c. The maximum allowable containment leakage rate, L_a , at P_a , shall be 0.1 % of containment air weight per day. |
 - d. Leakage Rate acceptance criteria are: |
 - 1. Containment leakage rate acceptance criterion is $\leq 1.0 L_a$. During the first unit startup following testing in accordance with this program, the leakage rate acceptance are $< 0.60 L_a$ for the Type B and C tests and $\leq 0.75 L_a$ for Type A tests. |
 - 2. Air lock testing acceptance criteria are: |
 - a) Overall air lock leakage rate is $\leq 0.05 L_a$ when tested at $\geq P_a$. |
 - b) For each door, leakage rate is $\leq 0.01 L_a$ when pressurized to ≥ 14.5 psig. |
 - e. The provisions of SR 3.0.2 do not apply to the test frequencies in the Containment Leakage Rate Testing Program. |
 - f. The provisions of SR 3.0.3 are applicable to the Containment Leakage Rate Testing Program. |
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Enclosure 3

**Updated Marked-Up TS Pages
(For Information Only)**

5.5 Programs and Manuals

5.5.4 Radioactive Effluent Controls Program (continued)

- g. Limitations on the dose rate resulting from radioactive material released in gaseous effluents from the site to areas at or beyond the site boundary:
 - 1. For noble gases: less than or equal to a dose rate of 500 mrem/yr to the total body and less than or equal to a dose rate of 3000 mrem/yr to the skin, and
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5.5.5 Component Cyclic or Transient Limit

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5.5.6 Pre-Stressed Concrete Containment Tendon Surveillance Program

This program provides controls for monitoring any tendon degradation in pre-stressed concrete containments, including effectiveness of its corrosion protection medium, to ensure containment structural integrity. The program shall include baseline measurements prior to initial operations. The Tendon Surveillance Program, inspection frequencies, and acceptance criteria shall be in accordance with Regulatory Guide 1.35 as described in Section 1.8 of the UFSAR.

INSERT 1 →

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the Tendon Surveillance Program inspection frequencies.

(continued)

**Insert Page
Technical Specification 5.5.6**

Insert 1

ASME Code Section XI, Subsection IWL of the ASME Boiler and Pressure Vessel Code and applicable addenda as required by 10 CFR 50.55a, except where an exemption or relief has been authorized by the NRC.

INSERT PAGE 5.5-4

5.5 Programs and Manuals (continued)

5.5.15 Safety Function Determination Program (continued)

- b. A required system redundant to system(s) in turn supported by the inoperable supported system is also inoperable; or
- c. A required system redundant to support system(s) for the supported systems (a) and (b) above is also inoperable.

The SFDP identifies where a loss of safety function exists. If a loss of safety function is determined to exist by this program, the appropriate Conditions and Required Actions of the LCO in which the loss of safety function exists are required to be entered.

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INSERT

- b. The peak calculated containment internal pressure for the design basis loss of coolant accident, P_a , is 52.0 psig for Units 1 and 3, and 58.0 psig for Unit 2. The containment design pressure is 60 psig.
- c. The maximum allowable containment leakage rate, L_a , at P_a , shall be 0.1 % of containment air weight per day.
- d. Leakage Rate acceptance criteria are:

1. → 2

Containment leakage rate acceptance criterion is $\leq 1.0 L_a$. During the first unit startup following testing in accordance with this program, the leakage rate acceptance are $< 0.60 L_a$ for the Type B and C tests and $\leq 0.75 L_a$ for Type A tests.

(continued)

**Insert Page
Technical Specification 5.5.16**

Insert 1

1. The visual examination of containment concrete surfaces intended to fulfill the requirements of 10 CFR 50, Appendix J, Option B testing, will be performed in accordance with the requirements of and frequency specified by ASME Code Section XI, Subsection IWL, except where relief has been authorized by the NRC. The containment concrete visual examinations may be performed during either power operation, e.g., performed concurrently with other containment inspection-related activities such as tendon testing, or during a maintenance/refueling outage.

2. The visual examination of the steel liner plate inside containment intended to fulfill the requirements of 10 CFR 50, Appendix J, Option B testing, will be performed in accordance with the requirements of and frequency specified by ASME Code Section XI, Subsection IWE, except where relief has been authorized by the NRC.

5.5 Programs and Manuals (continued)

5.5.16 Containment Leakage Rate Testing Program (continued)

2. → 2. Air lock testing acceptance criteria are:
- a) → 2. Overall air lock leakage rate is $\leq 0.05 L_a$ when tested at $\geq P_a$.
 - b) → 2. For each door, leakage rate is $\leq 0.01 L'_a$ when pressurized to ≥ 14.5 psig.

- e. The provisions of SR 3.0.2 do not apply to the test frequencies in the Containment Leakage Rate Testing Program.
 - f. The provisions of SR 3.0.3 are applicable to the Containment Leakage Rate Testing Program.
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