

April 6, 1994

Docket Nos. 50-528, 50-529  
and 50-530

Mr. William F. Conway  
Executive Vice President, Nuclear  
Arizona Public Service Company  
Post Office Box 53999  
Phoenix, Arizona 85072-3999

Dear Mr. Conway:

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Docket File  
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LTran

RBarrett  
NRC & Local PDRs  
DFoster-Curseen  
GHill (6), P1-37  
OC/LFDCB, 4503  
PDIV-3 R/F  
OGC, 15B18  
ACRS (10), P-315  
BHolian  
KPerkins, RIV/WCFO

SUBJECT: ISSUANCE OF AMENDMENTS FOR THE PALO VERDE NUCLEAR GENERATING  
STATION UNIT NO. 1 (TAC NO. M88337), UNIT NO. 2 (TAC NO. M88338),  
AND UNIT NO. 3 (TAC NO. M88339)

The Commission has issued the enclosed Amendment No. 73 to Facility Operating License No. NPF-41, Amendment No. 59 to Facility Operating License No. NPF-51, and Amendment No. 45 to Facility Operating License No. NPF-74 for the Palo Verde Nuclear Generating Station, Unit Nos. 1, 2, and 3, respectively. The amendments consist of changes to the Technical Specifications in response to your application dated December 2, 1993.

These amendments will modify TS 3/4.6.1.2 by removing the schedular requirements for a Type A (overall integrated containment leakage rate) test to be performed specifically at  $40 \pm 10$  month intervals and replacing these requirements with a requirement to perform Type A testing in accordance with Appendix J to 10 CFR Part 50.

A copy of the related Safety Evaluation is also enclosed. A notice of issuance will be included in the Commission's next regular biweekly Federal Register notice.

Sincerely,

Original signed by:

Linh N. Tran, Project Manager  
Project Directorate IV-3  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 73 to NPF-41
2. Amendment No. 59 to NPF-51
3. Amendment No. 45 to NPF-74
4. Safety Evaluation

cc w/enclosures:

See next page

SEE PREVIOUS CONCURRENCE\*

OFC	PDIV-3/LA <i>dfc</i>	PDIV-3/PM	PDIV-3/PM*	NRR/SCSB*	NRR/OTSB*
NAME	DFoster-Curseen	LTran	TPolich	RBarrett	CGrimes
DATE	4/5/94	4/6/94	03/15/94	03/22/94	03/25/94

OFC	OGC*	PDIV-3/D <i>TPQ</i>
NAME	EHoller	TQuay
DATE	04/01/94	4/6/94

OFFICIAL RECORD COPY/ FILENAME: A:\PV88337.AMD

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P PDR

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*QF01 11*

April 6, 1994

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These amendments will modify TS 3/4.6.1.2 by removing the schedular requirements for a Type A (overall integrated containment leakage rate) test to be performed specifically at  $40 \pm 10$  month intervals and replacing these requirements with a requirement to perform Type A testing in accordance with Appendix J to 10 CFR Part 50.

A copy of the related Safety Evaluation is also enclosed. A notice of issuance will be included in the Commission's next regular biweekly Federal Register notice.

Sincerely,

Original signed by:

Linh N. Tran, Project Manager  
Project Directorate IV-3  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 73 to NPF-41
2. Amendment No. 59 to NPF-51
3. Amendment No. 45 to NPF-74
4. Safety Evaluation

cc w/enclosures:

See next page

SEE PREVIOUS CONCURRENCE\*

OFC	PDIV-3/LA <i>dfc</i>	PDIV-3/PM	PDIV-3/PM*	NRR/SCSB*	NRR/OTSB*
NAME	DFoster-Curseen	LTran	TPolich	RBarrett	CGrimes
DATE	4/5/94	4/6/94	03/15/94	03/22/94	03/25/94

OFC	OGC*	PDIV-3/D <i>td</i>
NAME	EHoller	TQuay <i>td</i>
DATE	04/01/94	4/6/94

OFFICIAL RECORD COPY/ FILENAME: A:\PV88337.AMD



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

April 6, 1994

Docket Nos. 50-528, 50-529  
and 50-530

Mr. William F. Conway  
Executive Vice President, Nuclear  
Arizona Public Service Company  
Post Office Box 53999  
Phoenix, Arizona 85072-3999

Dear Mr. Conway:

SUBJECT: ISSUANCE OF AMENDMENTS FOR THE PALO VERDE NUCLEAR GENERATING  
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The Commission has issued the enclosed Amendment No. 73 to Facility Operating License No. NPF-41, Amendment No. 59 to Facility Operating License No. NPF-51, and Amendment No. 45 to Facility Operating License No. NPF-74 for the Palo Verde Nuclear Generating Station, Unit Nos. 1, 2, and 3, respectively. The amendments consist of changes to the Technical Specifications in response to your application dated December 2, 1993.

These amendments will modify TS 3/4.6.1.2 by removing the schedular requirements for a Type A (overall integrated containment leakage rate) test to be performed specifically at  $40 \pm 10$  month intervals and replacing these requirements with a requirement to perform Type A testing in accordance with Appendix J to 10 CFR Part 50.

A copy of the related Safety Evaluation is also enclosed. A notice of issuance will be included in the Commission's next regular biweekly Federal Register notice.

Sincerely,

A handwritten signature in black ink, appearing to read "Linh N. Tran", is positioned above the typed name.

Linh N. Tran, Project Manager  
Project Directorate IV-3  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 73 to NPF-41
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4. Safety Evaluation

cc w/enclosures:  
See next page

Mr. William F. Conway  
Arizona Public Service Company

Palo Verde

cc:

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Arizona Radiation Regulatory Agency  
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Phoenix, Arizona 85040

Chairman  
Maricopa County Board of Supervisors  
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Chief Operating Officer  
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Washington, D.C. 20036

Ms. Angela K. Krainik, Manager  
Nuclear Licensing  
Arizona Public Service Company  
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Phoenix, Arizona 85072-2034



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

ARIZONA PUBLIC SERVICE COMPANY, ET AL.

DOCKET NO. STN 50-528

PALO VERDE NUCLEAR GENERATING STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 73  
License No. NPF-41

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by the Arizona Public Service Company (APS or the licensee) on behalf of itself and the Salt River Project Agricultural Improvement and Power District, El Paso Electric Company, Southern California Edison Company, Public Service Company of New Mexico, Los Angeles Department of Water and Power, and Southern California Public Power Authority dated December 2, 1993, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C(2) of Facility Operating License No. NPF-41 is hereby amended to read as follows:

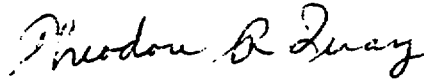
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PDR ADOCK 05000528  
P PDR

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 73, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated into this license. APS shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan, except where otherwise stated in specific license conditions.

3. This license amendment is effective as of the date of issuance and must be fully implemented no later than 45 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Theodore R. Quay, Director  
Project Directorate IV-3  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

. Date of Issuance: April 6, 1994

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 73 TO FACILITY OPERATING LICENSE NO. NPF-41

DOCKET NO. STN 50-528

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change.

Remove

3/4 6-1  
3/4 6-2  
3/4 6-3

Insert

3/4 6-1  
3/4 6-2  
3/4 6-3

### 3/4.6 CONTAINMENT SYSTEMS

#### 3/4.6.1 PRIMARY CONTAINMENT

##### CONTAINMENT INTEGRITY

##### LIMITING CONDITION FOR OPERATION

---

3.6.1.1 Primary CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

Without primary CONTAINMENT INTEGRITY, restore CONTAINMENT INTEGRITY within 1 hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

##### SURVEILLANCE REQUIREMENTS

---

4.6.1.1 Primary CONTAINMENT INTEGRITY shall be demonstrated:

- a. At least once per 31 days by verifying that all penetrations\* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in their positions except as provided in Table 3.6-1 of Specification 3.6.3.
- b. By verifying that each containment air lock is in compliance with the requirements of Specification 3.6.1.3.
- c. After each closing of each penetration subject to Type B testing, except containment air locks, if opened following a Type A or B test, by leak rate testing the seal with gas at P<sub>a</sub> 49.5 psig and verifying that when the measured leakage rate for these seals is added to the leakage rates determined pursuant to Specification 4.6.1.2b. for all other Type B and C penetrations, the combined leakage rate is less than or equal to 0.60 L<sub>a</sub>.

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\* Except valves, blind flanges, and deactivated automatic valves which are located inside the containment and are locked, sealed, or otherwise secured in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except that such verification need not be performed more often than once per 92 days.



## CONTAINMENT SYSTEMS

### CONTAINMENT LEAKAGE

#### LIMITING CONDITION FOR OPERATION

---

3.6.1.2 Containment leakage rates shall be limited to:

- a. An overall integrated leakage rate of:
  1. Less than or equal to  $L_a$ , 0.10% by weight of the containment air per 24 hours at  $P_a$ , 49.5 psig, or
  2. Less than or equal to  $L_t$ , 0.05% by weight of the containment air per 24 hours at a reduced pressure of  $P_t$ , 24.8 psig.
- b. A combined leakage rate of less than or equal to  $0.60 L_a$  for all penetrations and valves subject to Type B and C tests, when pressurized to  $P_a$ .

APPLICABILITY: MODES 1, 2, 3, and 4.

#### ACTION:

With either (a) the measured overall integrated containment leakage rate exceeding  $0.75 L_a$  or  $0.75 L_t$ , as applicable, or (b) with the measured combined leakage rate for all penetrations and valves subject to Types B and C tests exceeding  $0.60 L_a$ , restore the overall integrated leakage rate to less than or equal to  $0.75 L_a$  or less than or equal to  $0.75 L_t$ , as applicable, and the combined leakage rate for all penetrations and valves subject to Type B and C tests to less than or equal to  $0.60 L_a$  prior to increasing the Reactor Coolant System temperature above 210°F.

#### SURVEILLANCE REQUIREMENTS

---

4.6.1.2 The containment leakage rates shall be demonstrated at the following test schedule and shall be determined in conformance with the criteria specified in Appendix J of 10 CFR Part 50 using the methods and provisions of ANSI N45.4 - 1972:

- a. Type A (Overall Integrated Containment Leakage Rate) testing shall be conducted in accordance with the requirements specified in Appendix J to 10 CFR 50, as modified by approved exemptions.

## CONTAINMENT SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

---

- b. Type B and C tests shall be conducted with gas at P<sub>a</sub>, 49.5 psig, at intervals no greater than 24 months except for tests involving:
  - 1. Air locks,
  - 2. Purge supply and exhaust isolation valves with resilient material seals.
- c. Purge supply and exhaust isolation valves with resilient material seals shall be tested and demonstrated OPERABLE per Specifications 4.6.1.7.2 and 4.6.1.7.3.
- d. Air locks shall be tested and demonstrated OPERABLE per Specification 4.6.1.3.
- e. The provisions of Specification 4.0.2 are not applicable.

## CONTAINMENT SYSTEMS

### CONTAINMENT AIR LOCKS

#### LIMITING CONDITION FOR OPERATION

---

3.6.1.3 Each containment air lock shall be OPERABLE with:

- a. Both doors closed except when the air lock is being used for normal transit entry and exit through the containment, then at least one air lock door shall be closed, and
- b. An overall air lock leakage rate of less than or equal to  $0.05 L_a$  at  $P_a$ , 49.5 psig.

APPLICABILITY: MODES 1, 2, 3, and 4.

#### ACTION:

- a. With one containment air lock door inoperable:
  1. Maintain at least the OPERABLE air lock door closed\* and either restore the inoperable air lock door to OPERABLE status within 24 hours or lock the OPERABLE air lock door closed. Operation may then continue until performance of the next required overall air lock leakage test provided that the OPERABLE air lock door is verified to be locked closed at least once per 31 days, or
  2. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
  3. The provisions of Specification 3.0.4 are not applicable.
- b. With the containment air lock inoperable, except as the result of an inoperable air lock door, maintain at least one air lock door closed; restore the inoperable air lock to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

---

4.6.1.3 Each containment air lock shall be demonstrated OPERABLE:

- a. Within 72 hours following each closing, except when the air lock is being used for multiple entries, then at least once per 72 hours, by verifying seal leakage to be less than or equal to  $0.01 L_a$  when determined with the volume between the door seals pressurized to greater than or equal to  $14.5 \pm 0.5$  psig, for at least 15 minutes,

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\*Except during entry to repair an inoperable inner door, for a cumulative time not to exceed 1 hour per year.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

ARIZONA PUBLIC SERVICE COMPANY, ET AL.

DOCKET NO. STN 50-529

PALO VERDE NUCLEAR GENERATING STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 59  
License No. NPF-51

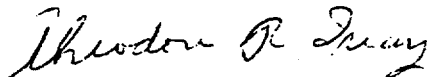
1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by the Arizona Public Service Company (APS or the licensee) on behalf of itself and the Salt River Project Agricultural Improvement and Power District, El Paso Electric Company, Southern California Edison Company, Public Service Company of New Mexico, Los Angeles Department of Water and Power, and Southern California Public Power Authority dated December 2, 1993, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations set forth in 10 CFR Part I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C(2) of Facility Operating License No. NPF-51 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 59, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated into this license. APS shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan, except where otherwise stated in specific license conditions.

3. This license amendment is effective as of the date of issuance and must be fully implemented no later than 45 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Theodore R. Quay, Director  
Project Directorate IV-3  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: April 6, 1994

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 59 TO FACILITY OPERATING LICENSE NO. NPF-51

DOCKET NO. STN 50-529

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change.

Remove

3/4 6-1  
3/4 6-2  
3/4 6-3

Insert

3/4 6-1  
3/4 6-2  
3/4 6-3

### 3/4.6 CONTAINMENT SYSTEMS

#### 3/4.6.1 PRIMARY CONTAINMENT

##### CONTAINMENT INTEGRITY

##### LIMITING CONDITION FOR OPERATION

---

3.6.1.1 Primary CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

Without primary CONTAINMENT INTEGRITY, restore CONTAINMENT INTEGRITY within 1 hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

##### SURVEILLANCE REQUIREMENTS

---

4.6.1.1 Primary CONTAINMENT INTEGRITY shall be demonstrated:

- a. At least once per 31 days by verifying that all penetrations\* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in their positions except as provided in Table 3.6-1 of Specification 3.6.3.
- b. By verifying that each containment air lock is in compliance with the requirements of Specification 3.6.1.3.
- c. After each closing of each penetration subject to Type B testing, except containment air locks, if opened following a Type A or B test, by leak rate testing the seal with gas at P<sub>a</sub> 49.5 psig and verifying that when the measured leakage rate for these seals is added to the leakage rates determined pursuant to Specification 4.6.1.2b. for all other Type B and C penetrations, the combined leakage rate is less than or equal to 0.60 L<sub>a</sub>.

---

\*Except valves, blind flanges and deactivated automatic valves which are located inside the containment and are locked, sealed, or otherwise secured in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except that such verification need not be performed more often than once per 92 days.

## CONTAINMENT SYSTEMS

### CONTAINMENT LEAKAGE

#### LIMITING CONDITION FOR OPERATION

---

3.6.1.2 Containment leakage rates shall be limited to:

- a. An overall integrated leakage rate of:
  1. Less than or equal to  $L_a$ , 0.10% by weight of the containment air per 24 hours at  $P_a$ , 49.5 psig, or
  2. Less than or equal to  $L_t$ , 0.05% by weight of the containment air per 24 hours at a reduced pressure of  $P_t$ , 24.8 psig.
- b. A combined leakage rate of less than or equal to  $0.60 L_a$  for all penetrations and valves subject to Type B and C tests, when pressurized to  $P_a$ .

APPLICABILITY: MODES 1, 2, 3, and 4.

#### ACTION:

With either (a) the measured overall integrated containment leakage rate exceeding  $0.75 L_a$  or  $0.75 L_t$ , as applicable, or (b) with the measured combined leakage rate for all penetrations and valves subject to Types B and C tests exceeding  $0.60 L_a$ , restore the overall integrated leakage rate to less than or equal to  $0.75 L_a$ , or less than or equal to  $0.75 L_t$ , as applicable, and the combined leakage rate for all penetrations and valves subject to Type B and C tests to less than or equal to  $0.60 L_a$  prior to increasing the Reactor Coolant System temperature above 210°F.

#### SURVEILLANCE REQUIREMENTS

---

4.6.1.2 The containment leakage rates shall be demonstrated at the following test schedule and shall be determined in conformance with the criteria specified in Appendix J of 10 CFR Part 50 using the methods and provisions of ANSI N45.4 - 1972:

- a. Type A (Overall Integrated Containment Leakage Rate) testing shall be conducted in accordance with the requirements specified in Appendix J to 10 CFR 50, as modified by approved exemptions.



## CONTAINMENT SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

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- b. Type B and C tests shall be conducted with gas at  $P_o$ , 49.5 psig, at intervals no greater than 24 months except for tests involving:
  - 1. Air locks,
  - 2. Purge supply and exhaust isolation valves with resilient material seals.
- c. Purge supply and exhaust isolation valves with resilient material seals shall be tested and demonstrated OPERABLE per Specifications 4.6.1.7.2 and 4.6.1.7.3.
- d. Air locks shall be tested and demonstrated OPERABLE per Specification 4.6.1.3.
- e. The provisions of Specification 4.0.2 are not applicable.

## CONTAINMENT SYSTEMS

### CONTAINMENT AIR LOCKS

#### LIMITING CONDITION FOR OPERATION

---

3.6.1.3 Each containment air lock shall be OPERABLE with:

- a. Both doors closed except when the air lock is being used for normal transit entry and exit through the containment, then at least one air lock door shall be closed, and
- b. An overall air lock leakage rate of less than or equal to  $0.05 L_a$  at  $P_a$ , 49.5 psig.

APPLICABILITY: MODES 1, 2, 3, and 4.

#### ACTION:

- a. With one containment air lock door inoperable:
  1. Maintain at least the OPERABLE air lock door closed\* and either restore the inoperable air lock door to OPERABLE status within 24 hours or lock the OPERABLE air lock door closed. Operation may then continue until performance of the next required overall air lock leakage test provided that the OPERABLE air lock door is verified to be locked closed at least once per 31 days, or
  2. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
  3. The provisions of Specification 3.0.4 are not applicable.
- b. With the containment air lock inoperable, except as the result of an inoperable air lock door, maintain at least one air lock door closed; restore the inoperable air lock to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

---

4.6.1.3 Each containment air lock shall be demonstrated OPERABLE:

- a. Within 72 hours following each closing, except when the air lock is being used for multiple entries, then at least once per 72 hours, by verifying seal leakage to be less than or equal to  $0.01 L_a$  when determined with the volume between the door seals pressurized to greater than or equal to  $14.5 \pm 0.5$  psig, for at least 15 minutes,

---

\*Except during entry to repair an inoperable inner door, for a cumulative time not to exceed 1 hour per year.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

ARIZONA PUBLIC SERVICE COMPANY, ET AL.

DOCKET NO. STN 50-530

PALO VERDE NUCLEAR GENERATING STATION, UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 45  
License No. NPF-74

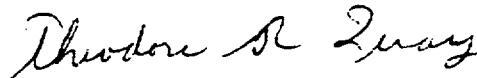
1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by the Arizona Public Service Company (APS or the licensee) on behalf of itself and the Salt River Project Agricultural Improvement and Power District, El Paso Electric Company, Southern California Edison Company, Public Service Company of New Mexico, Los Angeles Department of Water and Power, and Southern California Public Power Authority dated December 2, 1993, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C(2) of Facility Operating License No. NPF-74 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No.45 , and the Environmental Protection Plan contained in Appendix B, are hereby incorporated into this license. APS shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan, except where otherwise stated in specific license conditions.

3. This license amendment is effective as of the date of issuance and must be fully implemented no later than 45 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Theodore R. Quay, Director  
Project Directorate IV-3  
Division of Reactor Projects III/IV  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: April 6, 1994

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 45 TO FACILITY OPERATING LICENSE NO. NPF-74

DOCKET NO. STN 50-530

Replace the following pages of the Appendix A Technical Specifications with the enclosed pages. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change.

Remove

3/4 6-1  
3/4 6-2  
3/4 6-3

Insert

3/4 6-1  
3/4 6-2  
3/4 6-3

### 3/4.6 CONTAINMENT SYSTEMS

#### 3/4.6.1 PRIMARY CONTAINMENT

##### CONTAINMENT INTEGRITY

##### LIMITING CONDITION FOR OPERATION

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3.6.1.1 Primary CONTAINMENT INTEGRITY shall be maintained.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

Without primary CONTAINMENT INTEGRITY, restore CONTAINMENT INTEGRITY within 1 hour or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

##### SURVEILLANCE REQUIREMENTS

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4.6.1.1 Primary CONTAINMENT INTEGRITY shall be demonstrated:

- a. At least once per 31 days by verifying that all penetrations\* not capable of being closed by OPERABLE containment automatic isolation valves and required to be closed during accident conditions are closed by valves, blind flanges, or deactivated automatic valves secured in their positions except as provided in Table 3.6-1 of Specification 3.6.3.
- b. By verifying that each containment air lock is in compliance with the requirements of Specification 3.6.1.3.
- c. After each closing of each penetration subject to Type B testing, except containment air locks, if opened following a Type A or B test, by leak rate testing the seal with gas at P<sub>a</sub> 49.5 psig and verifying that when the measured leakage rate for these seals is added to the leakage rates determined pursuant to Specification 4.6.1.2b. for all other Type B and C penetrations, the combined leakage rate is less than or equal to 0.60 L<sub>a</sub>.

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\*Except valves, blind flanges and deactivated automatic valves which are located inside the containment and are locked, sealed, or otherwise secured in the closed position. These penetrations shall be verified closed during each COLD SHUTDOWN except that such verification need not be performed more often than once per 92 days.

## CONTAINMENT SYSTEMS

### CONTAINMENT LEAKAGE

#### LIMITING CONDITION FOR OPERATION

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3.6.1.2 Containment leakage rates shall be limited to:

- a. An overall integrated leakage rate of:
  1. Less than or equal to  $L_a$ , 0.10% by weight of the containment air per 24 hours at  $P_a$ , 49.5 psig, or
  2. Less than or equal to  $L_t$ , 0.05% by weight of the containment air per 24 hours at a reduced pressure of  $P_t$ , 24.8 psig.
- b. A combined leakage rate of less than or equal to  $0.60 L_a$  for all penetrations and valves subject to Type B and C tests, when pressurized to  $P_a$ .

APPLICABILITY: MODES 1, 2, 3, and 4.

#### ACTION:

With either (a) the measured overall integrated containment leakage rate exceeding  $0.75 L_a$  or  $0.75 L_t$ , as applicable, or (b) with the measured combined leakage rate for all penetrations and valves subject to Types B and C tests exceeding  $0.60 L_a$ , restore the overall integrated leakage rate to less than or equal to  $0.75 L_a$ , or less than or equal to  $0.75 L_t$ , as applicable, and the combined leakage rate for all penetrations and valves subject to Type B and C tests to less than or equal to  $0.60 L_a$  prior to increasing the Reactor Coolant System temperature above 210°F.

#### SURVEILLANCE REQUIREMENTS

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4.6.1.2 The containment leakage rates shall be demonstrated at the following test schedule and shall be determined in conformance with the criteria specified in Appendix J of 10 CFR Part 50 using the methods and provisions of ANSI N45.4 - 1972:

- a. Type A (Overall Integrated Containment Leakage Rate) testing shall be conducted in accordance with the requirements specified in Appendix J to 10 CFR 50, as modified by approved exemptions.

## CONTAINMENT SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

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- b. Type B and C tests shall be conducted with gas at  $P_a$ , 49.5 psig, at intervals no greater than 24 months except for tests involving:
  - 1. Air locks,
  - 2. Purge supply and exhaust isolation valves with resilient material seals.
- c. Purge supply and exhaust isolation valves with resilient material seals shall be tested and demonstrated OPERABLE per Specifications 4.6.1.7.2 and 4.6.1.7.3.
- d. Air locks shall be tested and demonstrated OPERABLE per Specification 4.6.1.3.
- e. The provisions of Specification 4.0.2 are not applicable.



## CONTAINMENT SYSTEMS

### CONTAINMENT AIR LOCKS

#### LIMITING CONDITION FOR OPERATION

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3.6.1.3 Each containment air lock shall be OPERABLE with:

- a. Both doors closed except when the air lock is being used for normal transit entry and exit through the containment, then at least one air lock door shall be closed, and
- b. An overall air lock leakage rate of less than or equal to  $0.05 L_a$  at  $P_a$ , 49.5 psig.

APPLICABILITY: MODES 1, 2, 3, and 4.

#### ACTION:

- a. With one containment air lock door inoperable:
  1. Maintain at least the OPERABLE air lock door closed\* and either restore the inoperable air lock door to OPERABLE status within 24 hours or lock the OPERABLE air lock door closed. Operation may then continue until performance of the next required overall air lock leakage test provided that the OPERABLE air lock door is verified to be locked closed at least once per 31 days, or
  2. Be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
  3. The provisions of Specification 3.0.4 are not applicable.
- b. With the containment air lock inoperable, except as the result of an inoperable air lock door maintain at least one air lock door closed; restore the inoperable air lock to OPERABLE status within 24 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

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4.6.1.3 Each containment air lock shall be demonstrated OPERABLE:

- a. Within 72 hours following each closing, except when the air lock is being used for multiple entries, then at least once per 72 hours, by verifying seal leakage to be less than or equal to  $0.01 L_a$  when determined with the volume between the door seals pressurized to greater than or equal to  $14.5 \pm 0.5$  psig, for at least 15 minutes,

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\*Except during entry to repair an inoperable inner door, for a cumulative time not to exceed 1 hour per year.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 73 TO FACILITY OPERATING LICENSE NO. NPF-41,  
AMENDMENT NO. 59 TO FACILITY OPERATING LICENSE NO. NPF-51,  
AND AMENDMENT NO. 45 TO FACILITY OPERATING LICENSE NO. NPF-74  
ARIZONA PUBLIC SERVICE COMPANY, ET AL.  
PALO VERDE NUCLEAR GENERATING STATION, UNIT NOS. 1, 2, AND 3  
DOCKET NOS. STN 50-528, STN 50-529, AND STN 50-530

1.0 INTRODUCTION

By letter dated December 2, 1993, the Arizona Public Service Company (APS or the licensee) submitted a request for changes to the Technical Specifications (TS) for the Palo Verde Nuclear Generating Station, Units 1, 2, and 3 (Appendix A to Facility Operating License Nos. NPF-41, NPF-51, and NPF-74, respectively). The Arizona Public Service Company submitted this request on behalf of itself, the Salt River Project Agricultural Improvement and Power District, Southern California Edison Company, El Paso Electric Company, Public Service Company of New Mexico, Los Angeles Department of Water and Power, and Southern California Public Power Authority. Specifically, the proposed changes would revise the Palo Verde TS 3/4.6.1.2 by deleting the schedular requirements for Type A (overall integrated containment leakage rate) tests to be performed at  $40 \pm 10$  month intervals and instead reference Type A testing in accordance with Appendix J to 10 CFR Part 50. The proposed amendment would also include several editorial/administrative changes.

2.0 BACKGROUND

Currently, the Palo Verde TS requires a set of three containment integrated leakage rate (Type A) tests be performed specifically at  $40 \pm 10$  month intervals during each 10-year service period, with the third test of each set performed during the shutdown for the 10-year plant inservice inspection. Appendix J to 10 CFR Part 50 requires that a set of three Type A tests be conducted at approximately equal intervals during the 10-year service period with the third test of each set conducted to coincide with the shutdown for the 10-year plant inservice inspection outage. While the Palo Verde TS leakage rate testing requirements essentially duplicate the requirement in Appendix J, the TS specifically requires the Type A tests to be performed at  $40 \pm 10$  month intervals. The licensee stated that this TS requirement to conduct Type A tests at  $40 \pm 10$  month intervals is too restrictive for units with 18-month fuel cycle. Therefore, the licensee proposes to revise the TS to delete the detailed surveillance schedule for the Type A tests, and instead reference performance of Type A testing in accordance with Appendix J to 10 CFR Part 50.

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### 3.0 TECHNICAL SPECIFICATION CHANGES

Technical Specification Surveillance Requirement 4.6.1.2.a would be revised to remove the specific requirement that the Type A tests be performed at  $40 \pm 10$  month intervals with the third test of each set conducted during the shutdown for the 10-year plant inservice inspection. The revised requirement would read:

"Type A (Overall Integrated Containment Leakage Rate) testing shall be conducted in accordance with the requirements specified in Appendix J to 10 CFR 50, as modified by approved exemptions."

Technical Specification Surveillance Requirements 4.6.1.2.b and 4.6.1.2.c would be deleted. The licensee stated that these Type A test requirements are also specified in Appendix J to 10 CFR Part 50 and need not be reiterated in the Technical Specifications. However, Surveillance Requirement 4.6.1.2.c.3 is not specified in Appendix J to the same level of detail. This surveillance requirement concerns the accuracy of supplemental testing. Section III.A.3(b) of Appendix J states the requirements for the accuracy of supplemental testing in terms of a fraction of  $L_a$ , while Surveillance Requirement 4.6.1.2.c.3 is related to a specific test and its success criteria. Although the requirement is not specified in the same level of detail in Appendix J as in the technical specification surveillance requirement, the staff finds the deletion of this surveillance requirement acceptable because: (1) the requirement for a supplemental test and general requirements for the accuracy of the test are specified in Appendix J, and (2) it is not necessary for the technical specifications to contain the level of detail specified in section 6.6.1.2.c.3. In fact, the new Combustion Engineering Standard Technical Specifications are consistent with the licensee's proposal in this respect. The remaining Surveillance Requirements would be renumbered for continuity. Consistent with this renumbering, the reference in TS 4.6.1.1.c is revised from "Specification 4.6.1.2.d" to "Specification 4.6.1.2.b."

### 4.0 EVALUATION

Satisfactory leakage results are a requirement for the establishment of containment operability. Neither the general frequency nor the required number of Type A tests would be changed by the proposed changes. Also, the maximum allowable leakage rate at the calculated peak containment pressure would not be changed. Only the detailed  $40 \pm 10$  month test interval would be changed to provide more flexibility. Type A, B, and C tests would continue to be performed in accordance with Appendix J to 10 CFR Part 50. Type A test acceptance criteria would not be changed and combined leakage of penetrations subject to Type B and C tests would be maintained within the required limits. Also, the proposed changes do not impact the design basis of the containment and would not change the response of containment during a design basis accident. Finally, the testing method, acceptance criteria, and the Bases to the TS are not changed by the proposed revisions to the TS. Therefore, based on all of the above, the staff finds the proposed changes to be acceptable.

## 5.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Arizona State official was notified of the proposed issuance of the amendment. The State official had no comments.

## 6.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (59 FR 616). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

## 7.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: L. Tran

Date: April 6, 1994