

**ENCLOSURE 2**

**RENEWED OPERATING LICENSE NUMBER NPF-51**

**ADAMS ACCESSION NO. ML110800465**

ARIZONA PUBLIC SERVICE COMPANY  
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  
SOUTHERN CALIFORNIA PUBLIC POWER AUTHORITY  
DOCKET NO. STN 50-529  
PALO VERDE NUCLEAR GENERATING STATION, UNIT 2  
RENEWED FACILITY OPERATING LICENSE

Renewed Facility Operating License No. NPF-51

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
  - A. The application to renew Facility Operating License No. NPF-51 filed by Arizona Public Service Company, 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 (licensees), complies with the standards and requirements of the Atomic Energy Act of 1954, as amended, and the Commission's regulations set forth in 10 CFR Chapter I and all required notifications to other agencies or bodies have been duly made;
  - B. Construction of the Palo Verde Nuclear Generating Station, Unit 2 (facility) has been substantially completed in conformity with Construction Permit No. CPPR-142 and the application, as amended, the provisions of the Act and the regulations of the Commission;
  - C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission (except as exempted from compliance in Section 2.D below);

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- D. There is reasonable assurance: (i) that the activities authorized by this renewed operating license 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 set forth in 10 CFR Chapter I (except as exempted from compliance in Section 2.D below);
- E. Arizona Public Service Company\* is technically qualified to engage in the activities authorized by this renewed operating license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;
- F. The licensees have satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;
- G. The issuance of this renewed operating license will not be inimical to the common defense and security or to the health and safety of the public;
- H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs, and after considering available alternatives, the issuance of Renewed Facility Operating License No. NPF-51, subject to the conditions for protection of the environment set forth in the Environmental Protection Plan attached as Appendix B, is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied;
- I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this renewed operating license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70; and
- J. Actions have been identified and have been or will be taken with respect to (1) managing the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require review under 10 CFR 54.21(a)(1) during the period of extended operation; and (2) time-limited aging analyses that have been identified to require review under 10 CFR 54.21(c), such that there is reasonable assurance that the activities authorized by the renewed operating license will continue to be conducted in accordance with the current licensing basis, as defined in 10 CFR 54.3, for the facility, and that any changes made to the facility's current license basis in order to comply with 10 CFR 54.29(a) are in accordance with the Act and the Commission's regulations.

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\* Arizona Public Service Company is authorized to act as agent for 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 and has exclusive responsibility and control over the physical construction, operation and maintenance of the facility.

2. The license for fuel loading and low power testing, License No. NPF-46, issued in December 1985, was superseded by full power Operating License No. NPF-51 issued in April 1986. Renewed Facility Operating License No. NPF-51 is hereby issued to the Arizona Public Service Company, 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 (licensees) to read as follows:
  - A. This renewed operating license applies to the Palo Verde Nuclear Generating Station, Unit 2, a pressurized water reactor and associated equipment (facility) owned by the licensees. The facility is located on the licensees' site in Maricopa County, Arizona and is described in the licensees' Final Safety Analysis Report, as supplemented and amended; in the related CESSAR Final Safety Analysis Report, as supplemented and amended through Amendment No. 8 and referenced in the licensees' updated Final Safety Analysis Report; and in their Environmental Report, as supplemented and amended.
  - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:
    - (1) Pursuant to Section 103 of the Act and 10 CFR Part 50, Arizona Public Service Company, 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 to possess, and Arizona Public Service Company (APS) to use and operate the facility at the designated location in Maricopa County, Arizona, in accordance with the procedures and limitations set forth in this renewed operating license;
    - (2) Pursuant to the Act and 10 CFR Part 70, APS to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the licensees' Final Safety Analysis Report, as supplemented and amended, and the CESSAR Final Safety Analysis Report as supplemented and amended through Amendment No. 8 and referenced in the licensees' updated Final Safety Analysis Report;
    - (3) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, APS to receive, possess and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
    - (4) Pursuant to the Act and 10 CFR Part 30, 40 and 70, APS to receive, possess and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for

sample analysis or instrument calibration or associated with radioactive apparatus or components; and

- (5) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, APS to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- (6) (a) Public Service Company of New Mexico (PNM) is authorized to transfer all or a portion of its 10.2% ownership share in Palo Verde, Unit 2 and a proportionate share of a third of PNM's interest in the Palo Verde common facilities to certain equity investors identified in its submissions of August 6 and November 26, 1986, and at the same time to lease back from such purchasers such interest sold in the Palo Verde, Unit 2 facility. The term of the lease is for approximately 29-½ years subject to a right of renewal. Additional sale and leaseback transactions of all or a portion of PNM's remaining ownership share of Palo Verde, Unit 2 are hereby authorized until June 30, 1987. Any such sale and leaseback transaction is subject to the representations and conditions set forth in the aforementioned application of February 14, 1986, and the subsequent submittals dated April 22, June 10, July 29, July 30, August 6, and August 7, October 16 and November 26, 1986, as well as the letters of the Director of the Office of Nuclear Reactor Regulation dated August 12 and December 11, 1986, consenting to such transactions. Specifically, the lessor and anyone else who may acquire an interest under this transaction are prohibited from exercising directly or indirectly any control over the licensees of the Palo Verde Nuclear Generating Station, Unit 2. For purposes of this condition the limitations in 10 CFR 50.81, "Creditor Regulations," as now in effect and as they may be subsequently amended, are fully applicable to the lessor and any successor in interest to that lessor as long as the renewed license for Palo Verde, Unit 2 remains in effect; this financial transaction shall have no effect on the renewed operating license for the Palo Verde nuclear facility throughout the term of the renewed operating license.
- (b) Further, the licensees are also required to notify the NRC in writing prior to any change in: (i) the terms or conditions of any lease agreements executed as part of this transaction; (ii) the ANPP Participation Agreement, (iii) the existing property insurance coverage for the Palo Verde nuclear facility, Unit 2 as specified in licensee counsel's letter of November 26, 1985, and (iv) and action by the lessor or others that may have an adverse effect on the safe operation of the facility.

- (7) (a) Deleted
  - (b) Deleted
  - (8) (a) Arizona Public Service Company is authorized to transfer all or a portion of its 29.1% ownership share in Palo Verde, Unit 2 to certain equity investors identified in its submissions of August 6, August 8 and December 5, 1986, and at the same time to lease back from such purchasers such interest sold in the Palo Verde, Unit 2 facility. The term of the lease is for approximately 29-½ years subject to a right of renewal. Additional sale and leaseback transactions of all or a portion of APS's remaining ownership share in Palo Verde, Unit 2 are hereby authorized until June 30, 1987. Any such sale and lease back transaction is subject to the representations and conditions set forth in the aforementioned application of May 2, 1986, and the subsequent submittals dated July 30, August 2, August 6, August 7, August 8, August 13, October 16 and December 5, 1986, as well as the letters of the Director of the Office of Nuclear Reactor Regulation dated August 15, and December 11, 1986, consenting to such transactions. Specifically, the lessor and anyone else who may acquire an interest under this transaction are prohibited from exercising directly or indirectly any control over the licensees of the Palo Verde Nuclear Generating Station, Unit 2. For purposes of this condition the limitations in 10 CFR 50.81, "Creditor Regulations," as now in effect and as they may be subsequently amended, are fully applicable to the lessor and any successor in interest to the lessor as long as the license for Palo Verde, Unit 2 remains in effect; this financial transaction shall have no effect on the renewed operating license for the Palo Verde nuclear facility throughout the term of the renewed operating license.
  - (b) Further, the licensees are also required to notify the NRC in writing prior to any change in: (i) the terms or conditions of any lease agreements executed as part of this transaction; (ii) the ANPP Participation Agreement, (iii) the existing property insurance coverage for the Palo Verde nuclear facility, Unit 2 as specified in licensee counsel's letter of November 26, 1985, and (iv) any action by the lessor or others that may have an adverse effect on the safe operation of the facility.
- C. This renewed operating license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

Arizona Public Service Company (APS) is authorized to operate the facility at reactor core power levels not in excess of 3990 megawatts thermal (100% power) in accordance with the conditions specified herein.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 184, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated into this renewed operating 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) Antitrust Conditions

This renewed operating license is subject to the antitrust conditions delineated in Appendix C to this renewed operating license.

(4) Operating Staff Experience Requirements (Section 13.1.2, SSER 9)\*

Deleted

(5) Initial Test Program (Section 14, SER and SSER 2)

Deleted

(6) Fire Protection Program

APS shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report for the facility, as supplemented and amended, and as approved in the SER through Supplement 11, subject to the following provision:

APS may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

(7) Inservice Inspection Program (Sections 5.2.4 and 6.6, SER and SSER 9)

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\* The parenthetical notation following the title of many license conditions denotes the section of the Safety Evaluation Report and/or its supplements wherein the license condition is discussed.

(8) Supplement No. 1 to NUREG-0737 Requirements

Deleted

(9) Additional Conditions

The Additional Conditions contained in Appendix D, as revised through Amendment No. 171, are hereby incorporated into this renewed operating license. The licensee shall operate the facility in accordance with the Additional Conditions.

(10) Mitigation Strategy License Condition

APS shall develop and maintain strategies for addressing large fires and explosions and that include the following key areas:

(a) Fire fighting response strategy with the following elements:

1. Pre-defined coordinated fire response strategy and guidance.
2. Assessment of mutual aid fire fighting assets.
3. Designated staging areas for equipment and materials.
4. Command and control.
5. Training of response personnel.

(b) Operations to mitigate fuel damage considering the following:

1. Protection and use of personnel assets.
2. Communications.
3. Minimizing fire spread.
4. Procedures for implementing integrated fire response strategy.
5. Identification of readily-available pre-staged equipment.
6. Training on integrated fire response strategy.
7. Spent fuel pool mitigation measures.

(c) Actions to minimize release to include consideration of:

1. Water spray scrubbing.
2. Dose to onsite responders.

(11) License Renewal License Conditions

- (a) The information in the UFSAR supplement, as revised, submitted pursuant to 10 CFR 54.21(d), shall be incorporated into the next UFSAR no later than the next scheduled update required by 10 CFR 50.71(e), following the issuance of this renewed operating license. Until this update is complete, the licensee may make changes to the information in the supplement without Commission approval provided that the licensee evaluates such changes pursuant to the criteria in 10 CFR 50.59 and otherwise complies with the requirements of that section.
- (b) The UFSAR supplement, as revised, submitted pursuant to 10 CFR 54.21(d), describes certain future activities to be completed prior to and/or during the period of extended operation. The licensee shall complete these activities in accordance with Appendix A of NUREG-1961, "Safety Evaluation Report Related to the License Renewal of Palo Verde Nuclear Generating Station, Units 1, 2, and 3," issued April 2011. The licensee shall notify the NRC in writing when activities to be completed prior to the period of extended operation are complete and can be verified by NRC inspection.
- (c) All capsules in the reactor vessel that are removed and tested must meet the test procedures and reporting requirements of American Society for Testing and Materials (ASTM) E 185-82 to the extent practicable for the configuration of the specimens in the capsule. The NRC must approve any changes to the capsule withdrawal schedule, including spare capsules, prior to implementation. All capsules placed in storage must be maintained for future insertion. The NRC must approve any changes to storage requirements.

D. (1) APS has previously been granted an exemption from Paragraph III.D.2(b)(ii) of Appendix J to 10 CFR Part 50. This exemption was previously granted in Facility Operating License No. NPF-46 pursuant to 10 CFR 50.12.

(2) Deleted

With the granting of this exemption, the facility will operate, to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.

- E. The licensees shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The combined set of plans, which contains Safeguards Information protected under 10 CFR 73.21, is entitled: "Palo Verde Nuclear Station Security Plan, Training and Qualification Plan, Safeguards Contingency Plan and Independent Spent Fuel Storage Installation Security Program Revision 3," submitted by letter dated May 16, 2006.
- F. Deleted
- G. The licensees shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims; and
- H. This renewed operating license is effective as of the date of issuance and shall expire at midnight on April 24, 2046.

FOR THE NUCLEAR REGULATORY COMMISSION

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Eric J. Leeds, Director  
Office of Nuclear Reactor Regulation

Attachments:

1. [Requirements for Initial Mode 1 Entry] – Deleted
2. [Schedule for NUREG-0737, Sup. 1, Requirement (SPDS)] – Deleted
3. Appendix A – Technical Specifications
4. Appendix B – Environmental Protection Plan
5. Appendix C – Antitrust Conditions
6. Appendix D – Additional Conditions

Date of Issuance: April 21, 2011