

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 50-530  
PALO VERDE NUCLEAR GENERATING STATION, UNIT 3  
RENEWED FACILITY OPERATING LICENSE

Renewed Facility Operating License No. NPF-74

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
  - A. The application to renew Facility Operating License No. NPF-74 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 3 (facility) has been substantially completed in conformity with Construction Permit No. CPPR-143 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<sup>\*</sup> 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-74, 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

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<sup>\*</sup> 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.

to comply with 10 CFR 54.29(a) are in accordance with the Act and the Commission's regulations.

2. The license for fuel loading and low power testing, License No. NPF-65, issued in March 1987, was superseded by full power Operating License No. NPF-74 issued in November 1987. Renewed Facility Operating License No. NPF-74 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 3, 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, as 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 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.

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

Deleted

(5) Additional Conditions

The Additional Conditions contained in Appendix D, as revised through Amendment No. 212, are hereby incorporated into this renewed operating license. The licensee shall operate the facility in accordance with the Additional Conditions.

(6) 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.

(7) 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. 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 NPF-65 pursuant to 10 CFR 50.12.

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.

APS shall fully implement and maintain in effect all provisions of the Commission-approved cyber security plan (CSP), including changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The APS CSP was approved by License Amendment No. 185 as supplemented by a change approved by License Amendment No. 190 and a change approved by License Amendment No. 204.

- F. 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 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.

- G. Deleted
- H. 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
- I. This renewed operating license is effective as of the date of issuance and shall expire at midnight on November 25, 2047.

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. Appendix A – Technical Specifications
3. Appendix B – Environmental Protection Plan
4. Appendix C – Antitrust Conditions
5. Appendix D – Additional Conditions

Date of Issuance: April 21, 2011

## Appendix A: Technical Specifications

Palo Verde, Unit 3, uses the same Appendix A as Palo Verde, Unit 1. Please refer to Palo Verde, Unit 1, for Appendix A (ML053110045).



Appendix B: Environmental Protection Plan

Palo Verde, Unit 3, uses the same Appendix B as Palo Verde, Unit 1. Please refer to Palo Verde, Unit 1, for Appendix B (ML053110045).

APPENDIX CANTITRUST CONDITIONS  
LICENSE NO. NPF-74

Arizona Public Service Company and the Salt River Project Agricultural Improvement and Power District shall comply with the following antitrust conditions:

1. In connection with the antitrust conditions, the following definitions are used herein:
  - A. "Bulk Power" means the electric power, and any attendant energy, supplied or made available at transmission or subtransmission voltage by one entity to another.
  - B. "Entity" means a person, private or public corporation, a municipality, a cooperative, an association, a joint stock association or business trust owning, operating or proposing in good faith to own or operate equipment or facilities for the generation, transmission or distribution of electricity to or for the public as a utility.
  - C. "Joint Applicant(s)" means the Arizona Public Service Company and the Salt River Project Agricultural Improvement and Power District.
2.
  - A. Each Joint Applicant will transmit Bulk Power over its transmission system, between or among two or more Entities with which it is interconnected, or will be interconnected in the future, without restrictions on use or resale of the power so transmitted, provided that such services can reasonably be accommodated from a technical standpoint without impairing each Joint Applicant's reliability or its own use of its facilities.
  - B. Each Joint Applicant is obligated under this condition to transmit Bulk Power on the terms stated above, and in connection with each Joint Applicant's plan to construct new transmission facilities for its own use, to include in its planning and construction program sufficient transmission capacity for such Bulk Power transactions, provided that such Applicant has received sufficient advance notice as may be necessary from a technical standpoint to accommodate the requirements of any requesting entity, and further provided that such entity(ies) are obligated as may be agreed (i) to share the capital, operating and maintenance costs of such new transmission facilities to the extent that additional cost burdens would be imposed on such Joint Applicant or (ii) to compensate the Joint Applicant fully for the use of its system.

3. The foregoing shall be implemented in a manner consistent with the provisions of the Federal Power Act as applicable and all rates, charges or practices in connection herewith are to be subject to the approval of regulatory agencies having jurisdiction over them.

## Appendix D: Additional Conditions

Palo Verde, Unit 3, uses the same Appendix D as Palo Verde, Unit 1. Please refer to Palo Verde, Unit 1, for Appendix D (ML053110045).