

December 28, 1988

Docket No.: STN 50-528

Mr. Donald B. Karner  
Executive Vice President  
Arizona Nuclear Power Project  
Post Office Box 52034  
Phoenix, Arizona 85072-2034

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Dear Mr. Karner:

SUBJECT: ISSUANCE OF AMENDMENT NO. 41 TO FACILITY OPERATING LICENSE NO. NPF-41, FOR THE PALO VERDE NUCLEAR GENERATING STATION UNIT 1 (TAC NO. 69006)

The Commission has issued the subject Amendment, which is enclosed, to the Facility Operating License for Palo Verde Nuclear Generating Station, Unit 1. The Amendment consists of changes to the Technical Specifications (TS) (Appendix A to the license) in response to your application transmitted by letter dated July 25, 1988.

The Amendment revises TS Section 3.3.2, Table 3.3-5, "Engineered Safety Features Response Times" by clarifying the response time requirements for radiation detectors associated with Control Room Essential Filtration Actuation. Minor editorial corrections have also been incorporated in TS Section 3/4.3.2, "Engineered Safety Features Actuation System Instrumentation."

A copy of the related Safety Evaluation is also enclosed. A Notice of Issuance will be included in the Commission's next regular bi-weekly Federal Register notice.

Sincerely,

original signed by

Terence L. Chan, Senior Project Manager  
Project Directorate V  
Division of Reactor Projects - III,  
IV, V and Special Projects

Enclosures:

1. Amendment No.41 to NPF-41
2. Safety Evaluation

cc: See next page

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PDR ADOCK 05000528  
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OFC: DRSP/PDV/LA	: DRSP/PDV/PM	: OGC	: DRSP/D:PDV	:	:
NAME: TChan	: JLee	: R Bachmann	: GWK	: Gorton	:
DATE: 12/16/88	: 12/16/88	: 12/21/88	: 12/28/88	:	:

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

December 28, 1988

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Executive Vice President  
Arizona Nuclear Power Project  
Post Office Box 52034  
Phoenix, Arizona 85072-2034

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NO. NPF-41, FOR THE PALO VERDE NUCLEAR GENERATING STATION  
UNIT 1 (TAC NO. 69006)

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Sincerely,

A handwritten signature in black ink, appearing to read "Terence L. Chan", written over a large, stylized flourish.

Terence L. Chan, Senior Project Manager  
Project Directorate V  
Division of Reactor Projects - III,  
IV, V and Special Projects

Enclosures:

1. Amendment No. 41 to NPF-41
2. Safety Evaluation

cc: See next page

Mr. Donald B. Karner  
Arizona Nuclear Power Project  
Executive Vice President  
Post Office Box 52034  
Phoenix, Arizona 85072-2034

Palo Verde

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Regional Administrator, Region V  
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Arizona Nuclear Power Project

- 2 -

Palo Verde

cc:

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Arizona Corporation Commission  
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Arizona Radiation Regulatory Agency  
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Phoenix, Arizona 85040

Mr. Charles Tedford, Director  
Arizona Radiation Regulatory Agency  
4814 South 40 Street  
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Chairman  
Maricopa County Board of Supervisors  
111 South Third Avenue  
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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

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. 41  
License No. NPF-41

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment, dated July 25, 1988 by the Arizona Public Service Company (APS) 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 (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 Act, and the 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;
  - 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 enclosure 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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(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 41, 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.

3. This license amendment is effective as of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

  
George W. Knighton, Director  
Project Directorate V  
Division of Reactor Projects - III,  
IV, V and Special Projects  
Office of Nuclear Reactor Regulation

Enclosure:  
Changes to the Technical  
Specifications

Date of Issuance: December 28, 1988

ENCLOSURE TO LICENSE AMENDMENT

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

DOCKET NO. STN 50-528

Replace the following page of the Appendix A Technical Specifications with the enclosed page. The revised page is identified by Amendment number and contains a vertical line indicating the areas of change. Also to be replaced is the following overleaf page to the amended page.

Amendment Pages

3/4 3-30

Overleaf Pages

3/4 3-29

TABLE 3.3-5 (Continued)

ENGINEERED SAFETY FEATURES RESPONSE TIMES

<u>INITIATING SIGNAL AND FUNCTION</u>	<u>RESPONSE TIME IN SECONDS</u>
2. Pressurizer Pressure - Low	
a. Safety Injection (HPSI)	≤ 30*/30**
b. Safety Injection (LPSI)	≤ 30*/30**
c. Containment Isolation	
1. CIAS actuated mini-purge valves	≤ 10.6*/10.6**
2. Other CIAS actuated valves	≤ 31*/31**
3. Containment Pressure - High	
a. Safety Injection (HPSI)	≤ 30*/30**
b. Safety Injection (LPSI)	≤ 30*/30**
c. Containment Isolation	
1. CIAS actuated mini-purge valves	≤ 10.6*/10.6**
2. Other CIAS actuated valves	≤ 31*/31**
d. Main Steam Isolation	
1. MSIS actuated MSIV's	≤ 5.6*/5.6**
2. MSIS actuated MFIV's#	≤ 10.6*/10.6**
e. Containment Spray Pump	≤ 33*/23**
4. Containment Pressure - High-High	
a. Containment Spray	≤ 33*/23**
5. Steam Generator Pressure - Low	
a. Main Steam Isolation	
1. MSIS actuated MSIV's	≤ 5.6*/5.6**
2. MSIS actuated MFIV's#	≤ 10.6*/10.6**
6. Refueling Water Tank - Low	
a. Containment Sump Recirculation	≤ 45*/45**
7. Steam Generator Level - Low	
a. Auxiliary Feedwater (Motor Drive)	≤ 46*/23**
b. Auxiliary Feedwater (Turbine Drive)	≤ 30*/30**

TABLE 3.3-5 (Continued)

ENGINEERED SAFETY FEATURES RESPONSE TIMES

<u>INITIATING SIGNAL AND FUNCTION</u>	<u>RESPONSE TIME IN SECONDS</u>
8. Steam Generator Level - High	
a. Main Steam Isolation	
1. MSIS actuated MSIV's	≤ 5.6*/5.6**
2. MSIS actuated MFIV's#	≤ 10.6*/10.6**
9. Steam Generator ΔP-High-Coincident With Steam Generator Level Low	
a. Auxiliary Feedwater Isolation from the Ruptured Steam Generator	≤ 16*/16**
10. Control Room Essential Filtration Actuation	≤ 180*/180**##
11. 4.16 kV Emergency Bus Undervoltage (Degraded Voltage)	
Loss of Power 90% system voltage	≤ 35.0
12. 4.16 kV Emergency Bus Undervoltage (loss of Voltage)	
Loss of Power	≤ 2.4

TABLE NOTATIONS

\*Diesel generator starting and sequence loading delays included. Response time limit includes movement of valves and attainment of pump or blower discharge pressure.

\*\*Diesel generator starting delays not included. Offsite power available. Response time limit includes movement of valves and attainment of pump or blower discharge pressure.

#MFIV valves tested at simulated operating conditions; valves tested at static flow conditions to ≤ 8.6\*/8.6\*\* seconds.

##Radiation detectors are exempt from response time testing. The response time of the radiation signal portion of the channel shall be measured from the detector output or from the input of first electronic component in channel to closure of dampers M-HJA-M01, M-HJA-M52, M-HJB-M01 and M-HJB-M55.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO.41 TO FACILITY OPERATING LICENSE NO. NPF-41

ARIZONA PUBLIC SERVICE COMPANY, ET AL.

PALO VERDE NUCLEAR GENERATING STATION, UNIT 1

DOCKET NO. STN 50-528

1.0 INTRODUCTION

By letter dated July 25, 1988 the Arizona Public Service Company (APS) 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 (licensees), requested changes to the Technical Specifications for the Palo Verde Nuclear Generating Station, Unit 1 (Appendix A to Facility Operating License No. NPF-41. The proposed changes would revise Technical Specification (TS) Table 3.3-5, "Engineered Safety Features Response Times" by adding a footnote to the Control Room Essential Filtration (CREF) Actuation function which would exempt the radiation detectors from response time testing. In addition, editorial corrections would also be implemented.

2.0 DISCUSSION AND EVALUATION

Arizona Nuclear Power Project (ANPP) has proposed the exemption of response time testing of the radiation detectors associated with the 18 month surveillance requirement of the CREF Actuation function on the basis that the simulation of a radiation signal is not required, per IEEE Standard 338-1977. This Standard states in part that "In general, incident environmental conditions such as seismic events, radiation fields, extreme pressures, temperatures, and moisture conditions are covered by design qualification and need not be simulated."

Notwithstanding the fact that the above statement is not applicable to this proposed change in that "incident environmental conditions" do not include the process variable itself, the proposed exemption of the radiation detectors was previously reviewed and accepted by the staff during the licensing review of Palo Verde Units 2 and 3. The Technical Specifications for Palo Verde Units 2 and 3 already include the above stated exemption. Since all three Palo Verde Units are of the same standardized design, the proposed exemption is equally applicable to Unit 1. Furthermore, surveillance testing for the functionality of the radiation detectors are verified on a monthly basis, per Administrative Procedure 36ST-9SQ01, "Radiation Monitoring Monthly Functional Test Procedure." As such, we conclude that the proposed change is acceptable. We also find the editorial corrections to be appropriate and acceptable.

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### 3.0 CONTACT WITH STATE OFFICIAL

The Arizona Radiation Regulatory Agency has been advised of the proposed determination of no significant hazards consideration with regard to these changes. No comments were received.

### 4.0 ENVIRONMENTAL CONSIDERATION

The amendment involves changes to the surveillance requirements of facility components located within the restricted area as defined in 10 CFR 20. The staff has determined that the amendment involves no significant increase in the amount, and no significant change in the type, of any effluent that may be released offsite and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued proposed findings that the amendment involves no significant hazard consideration, and there has been no public comment on such finding. Accordingly, the amendment meets 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 to be prepared in connection with the issuance of the amendment.

### 5.0 CONCLUSION

The staff 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. We, therefore, conclude that the proposed changes are acceptable.

#### Principal Contributor:

T. Chan

Dated: December 28, 1988