

# UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20655

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 35 TO FACILITY OPERATING LICENSE NO. NPF-41,

AMENDMENT NO. 22 TO FACILITY OPERATING LICENSE NO. NPF-51

AND AMENDMENT NO. 11 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

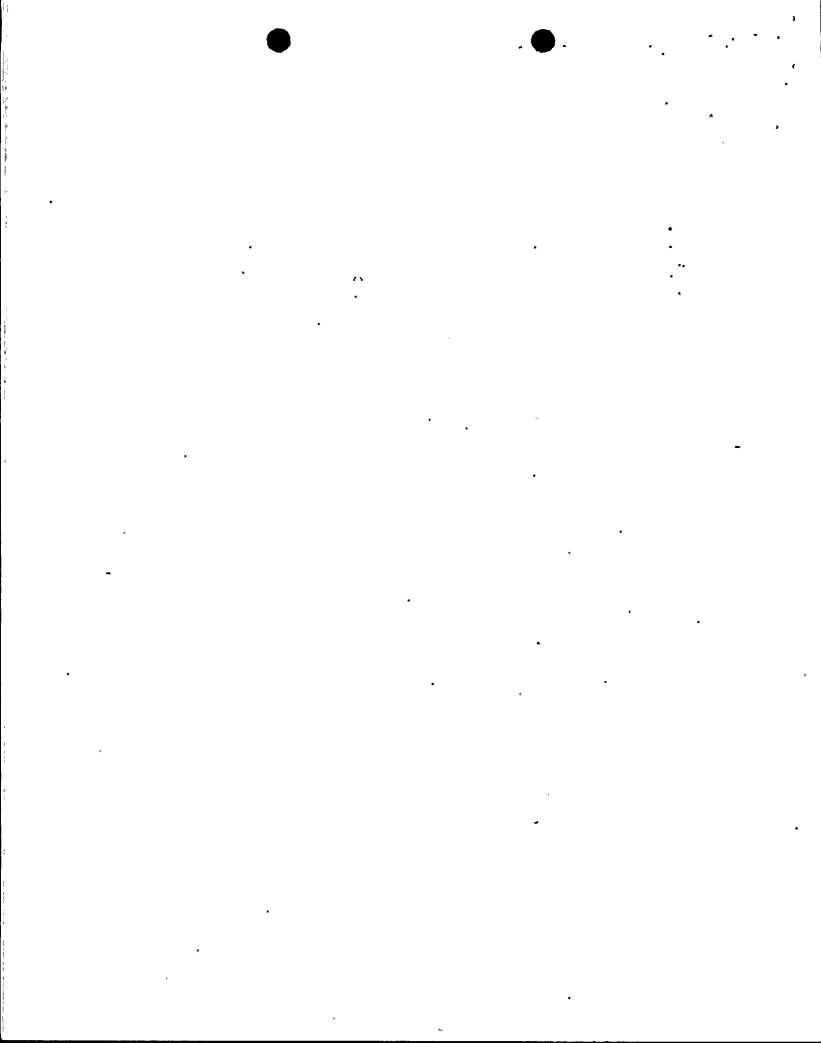
## 1.0 INTRODUCTION

By letter dated May 9, 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 a change to the Technical Specifications 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 proposed change would revise Technical Specification Table 3.6-1 to reduce the maximum actuation time of the containment isolation valves which isolate the containment air radioactivity monitor from 12 seconds to 1 second.

#### 2.0 EVALUATION

Technical Specification Table 3.6-1 lists containment isolation valves and their maximum actuation times. The operability of the containment automatic isolation valves ensures that the containment atmosphere will be isolated from the outside environment in the event of a release of radioactive material to the containment atmosphere or pressurization of the containment. Containment isolation within the time limits specified for those isolation valves designed to close automatically ensures that the release of radioactive material to the environment will be consistent with the assumptions used in the analyses for a LOCA.

The valves affected by this change, the isolation valves for the containment air radioactivity monitor, have actual actuation times of less than 1 second. By allowing 12 seconds for valve closure the containment air radioactivity monitor could possibly be subjected to pressures in excess of its 10 psi design limit. FSAR Figure 6.2.1-2, displays containment pressure and temperature response to a double-ended discharge leg slot break, and shows that pressures in excess of 40 psig are possible within 12 seconds of such an event.



The proposed amendments would reduce the allowable actuation times for these valves to 1 second, thereby preserving containment integrity by reducing the possibility of damage to the radiation monitor. This will ensure that the release of radioactive material from the containment atmosphere during accident conditions will be restricted to those leakage paths and associated leak rates assumed in the safety analyses, thereby limiting the site boundary radiation doses to within the 10 CFR Part 100 limits.

On the basis of the above evaluation, the staff concludes that the proposed change to Technical Specification Table 3.6-1 is acceptable.

## 3.0 CONTACT WITH STATE OFFICIAL

The Arizona Radiation Regulatory Agency was advised of the proposed determination of no significant hazards consideration with regard to this change. No comments were received.

### 4.0 ENVIRONMENTAL CONSIDERATIONS

The amendments involve changes in the use of a facility component located within the restricted area as defined in 10 CFR Part 20. The 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. 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 to be prepared in connection with the issuance of these amendments.

## 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 these amendments 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 change is acceptable.

Principal Contributor: M. Davis

Dated: July 29, 1988

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FIGURE 3.1-1 ALLOWABLE MTC MODES 1 AND 2 PALO VERDE - UNIT 2 PALO VERDE UNIT 2 CYCLE 2 (0%,0.5) 0.5 0 (100%,0.0) MODERATOR TEMPERATURE COEFFICIENT, (1017) 1 -0.5 ALLOWABLE MTC -1.5 -2 -2.5 AMENDMENT NO. 19 (0%,-2.8) -3 (100%,-3.5) -3.5 20 60 40 80 100 CORE POWER LEVEL, % OF RATED THERMAL POWER

## MINIMUM TEMPERATURE FOR CRITICALITY

#### LIMITING CONDITION FOR OPERATION

3.1.1.4 The Reactor Coolant System lowest operating loop temperature ( $T_{cold}$ ) shall be greater than; or equal to 552°F.

APPLICABILITY: MODES 1 and 2#\*.

#### **ACTION:**

With a Reactor Coolant System operating loop temperature ( $T_{\rm cold}$ ) less than 552°F, restore  $T_{\rm cold}$  to within its limit within 15 minutes or be in HOT STANDBY within the next 15 minutes.

#### SURVEILLANCE REQUIREMENTS

- 4.1.1.4 The Reactor Coolant System temperature (T<sub>cold</sub>) shall be determined to be greater than or equal to 552°F:
  - a. Within 15 minutes prior to achieving reactor criticality, and
  - b. At least once per 30 minutes when the reactor is critical and the Reactor Coolant System  $T_{cold}$  is less than 557°F.

<sup>#</sup>With  $K_{eff}$  greater than or equal to 1.0.

<sup>\*</sup>See Special Test Exception 3.10.5.