



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 21 TO FACILITY OPERATING LICENSE NO. NPF-41

ARIZONA PUBLIC SERVICE COMPANY, ET. AL.

PALO VERDE NUCLEAR GENERATING STATION, UNIT NO.1

DOCKET NO. STN 50-528

1.0 INTRODUCTION

By letters dated May 11 and 28, 1987, 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 (Appendix A to Facility Operating License NPF-41) for the Palo Verde Nuclear Generating Station, Unit 1. The proposed changes would revise several portions of the Technical Specifications relating to (1) the applicable modes for allowing changes to the trip setpoints for low pressure in the steam generator and pressurizer (Tables 2.2-1 and 3.3-3), (2) the definition of an operable incore detection system (Specification 3.3.3.2), and (3) the required boration flow rate (Specifications 3/4.9.1 and 3/4.10.1).

2.0 DISCUSSION

A discussion of the three areas of proposed change in the two applications is presented below:

(a) Table 2.2-1 and Table 3.3-3

Technical Specification 2.2, "Reactor Trip Setpoints," provides setpoints for various parameters in Table 2.2-1. Technical Specification 3/4.3.2, "Engineered Safety Features Actuation System Instrumentation," provides the required number of operable channels for various parameters in Table 3.3-3. Both Table 2.2-1 and Table 3.3-3 include notations which provide the allowances for manually reducing the trip setpoints for low pressurizer pressure and low steam generator pressure. Currently those notations state that the applicable modes for those allowances are Modes 3-6. By letter dated May 11, 1987, APS proposed to change the applicable modes to Modes 3-4 on the basis that the current Technical Specifications do not require these protection functions to be operable in Modes 5 and 6. The proposed change would also make those portions of the Technical Specifications consistent with the Technical Specifications previously reviewed and approved by the staff for Palo Verde, Units 2 and 3 (Appendix A to Facility Operating License Nos. NPF-51 and NPF-65, respectively), which are of the same design as Palo Verde, Unit 1.

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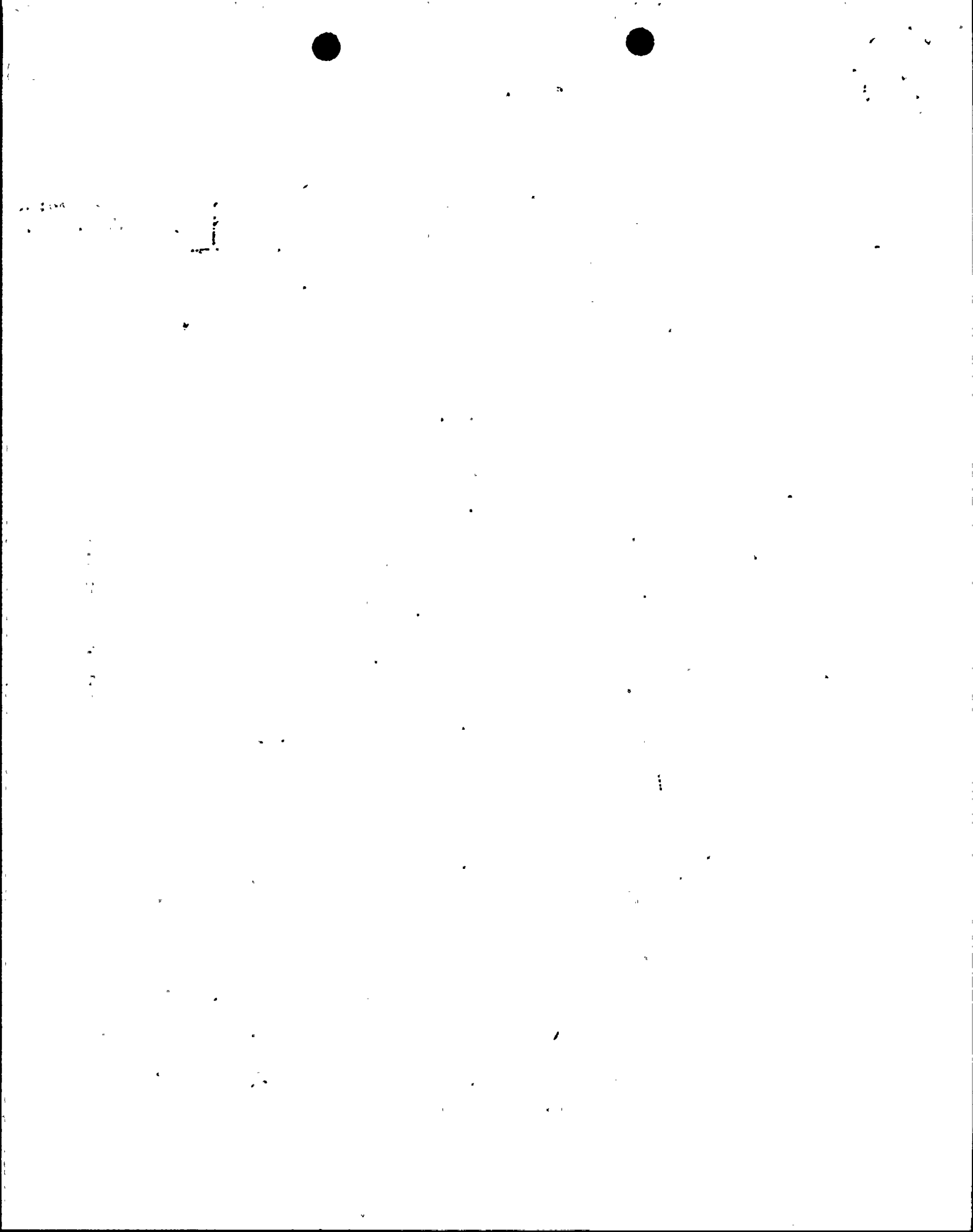
(b) Specification 3.3.3.2

Technical Specification 3.3.3.2 addresses the limiting condition for operation for the incore detectors used to measure the spatial neutron flux distribution of the reactor core. By letter dated May 28, 1987, APS proposed to modify part b. of this Specification to require the incore detection system to have a minimum of six tilt estimates, with at least one at each of three levels, in lieu of a minimum of two quadrant symmetric incore detector locations per core quadrant. In order to assure that this proposed change does not permit operation with a large number of failures, APS proposed to change part a. of the Specification to also require the incore detection system to have 75% of all detectors, with at least one detector in each quadrant at each level.

The change is being proposed so that (1) operation of the incore detection system is consistent with the design of the system, as well as with the data base and uncertainties presented in the report, "Evaluation of Uncertainty in the Nuclear Power Peaking Measured By the Self-Powered, Fixed In-core Detector System" (CENPD-153-P, Rev. 1-P-A), which presents the evaluation of the system, and (2) the definition of an operable string is consistent with the definition used on plants with only four detectors on a string. The change would also make that portion of the Technical Specifications consistent with the Technical Specifications previously reviewed and approved by the staff for Palo Verde, Units 2 and 3 (Appendix A to Facility Operating License Nos. NPF-51 and NPF-65, respectively), which are of the same design as Palo Verde, Unit 1.

(c) Specifications 3/4.9.1 and 3/4.10.1

Technical Specifications 3/4.9.1 and 3/4.10.1 provide the required boron concentration conditions during refueling, and the shutdown margin requirements for measuring control element assembly worth, respectively. Each of the Specifications provides an action statement which states that a minimum boration flowrate of 40 gpm of a solution containing 4000 ppm boron is required whenever the limiting conditions for operation are not met. By letter dated May 28, 1987, APS stated that the value of 40 gpm is incorrect and proposed to change this flowrate to the correct value of 26 gpm. The change is being proposed to be consistent with the values used in the previously reviewed design of the plant and with the correct values currently included in Specifications 3.1.1.1, 3.1.1.2 and 4.1.2.2. The proposed changes would also make those portions of the Technical Specifications consistent with the Technical Specifications previously reviewed and approved by the staff for Palo Verde, Units 2 and 3 (Appendix A to Facility Operating License Nos. NPF-51 and NPF-65, respectively), which are of the same design as Palo Verde, Unit 1.



3.0 EVALUATION

The staff has reviewed the above changes. As a result of that review, the staff has made the following determinations.

All of the changes are administrative in nature in that they are being proposed to correct errors and to eliminate inconsistencies in the Technical Specifications with regard to other sections of the Specifications and the previously reviewed plant design. The areas of change were previously reviewed and accepted by the staff in developing the Technical Specifications for Palo Verde, Units 2 and 3, and are included in the Specifications issued for Units 2 and 3. The plant design for the three units is identical. Therefore, the changes will make those portions of the Palo Verde, Unit 1 Specifications consistent with the Specifications for Units 2 and 3.

On the basis of the above evaluation, the staff finds the proposed changes to the Palo Verde, Unit 1 Specifications to be acceptable.

4.0 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.

5.0 ENVIRONMENTAL CONSIDERATION

This amendment involves administrative changes. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

6.0 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 this 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: E. Licitra

Dated: September 4, 1987

