



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 18 TO FACILITY OPERATING LICENSE NO. NPF-51
AND AMENDMENT NO. 6 TO FACILITY OPERATING LICENSE NO. NPF-74
ARIZONA PUBLIC SERVICE COMPANY, ET AL.
PALO VERDE NUCLEAR GENERATING STATION, UNIT NOS. 2 AND 3
DOCKET NOS. STN 50-529 AND 50-530

1.0 INTRODUCTION

By letter dated September 14, 1987, as revised by letter dated October 1, 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 a change to the Technical Specifications for the Palo Verde Nuclear Generating Station, Units 2 and 3 (Appendix A to Facility Operating License Nos. NPF-51 and NPF-74, respectively). The proposed change would revise the maximum enrichment for reload fuel from 4.0 to 4.05 weight percent U-235.

2.0 EVALUATION

The licensees have requested that the maximum enrichment for reload fuel for Palo Verde, Units 2 and 3 be increased from 4.0 to 4.05 weight percent U-235 and that Technical Specification 5.3.1 be revised accordingly. The reason for the request is to allow the desired fuel management for future 18-month equilibrium cycles. In support of this proposed change, the licensees have provided the following information.

The accidents which are affected by increasing the fuel enrichment are those dealing with storage of new and spent fuel. The Palo Verde Final Safety Analysis Report (FSAR) provides the results of accident analyses for both storage facilities.

The licensees' submittal includes a letter by Combustion Engineering, dated May 27, 1987, which verifies that the original analyses of the new fuel, spent fuel (except as noted below) and intermediate racks, as well as the fuel elevator, fuel upender and transfer machine were all performed for 4.30 weight percent U-235 fuel. Since the k_{eff} values based on the storage of 4.30 weight percent U-235 fuel meet the NRC acceptance criteria of no greater than 0.95 for fully flooded (unborated) conditions and 0.98 for optimum moderation conditions, the Palo Verde fuel storage facilities are acceptable for the storage of 4.05 weight percent U-235 fuel.

One exception is the analysis of the spent fuel racks with neutron poison (boron) boxes in the cells. This high density mode was analyzed for a maximum enrichment of 4.0 weight percent U-235. Therefore, if a future decision is made to use this mode for storage of higher enriched fuel, an analysis will be required for this higher enrichment. A footnote has been added to the licensees' proposed Technical Specification 5.3.1 to make this point clear.

Therefore, on the basis of the above evaluation, the staff concludes that the proposed change to Technical Specification 5.3.1 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 CONSIDERATION

The amendments involves a change in the installation or use of facility components located within the restricted areas as defined in 10 CFR 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 proposed findings that the amendments involve no significant hazards consideration, and there has been no public comment on such findings. 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 needs 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.

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Dated: March 9, 1988