



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 4 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

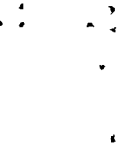
By letter dated September 30, 1985, the Arizona Public Service Company (APS) on behalf of itself, the Salt River Project Agricultural Improvement and Power District, Southern California Edison Company, El Paso Electric Company, Public Service Company of New Mexico, Los Angeles Department of Water and Power, and Southern California Public Power Authority (licensees), requested the Commission to grant an extension beyond the November 30, 1985 deadline to March 30, 1986 for environmental qualification of the two hydrogen recombiners and associated control panels at the Palo Verde Nuclear Generating Station, Unit 1. By letter dated October 16, 1985, the licensees further requested that paragraph 2.C(6) of Facility Operating License NPF-41 be amended to extend to March 30, 1986 the deadline date for environmental qualification of the above equipment.

2.0 DISCUSSION

Condition 2.C(6) of License NPF-41 for Palo Verde Unit 1 stated that, "Prior to November 30, 1985, APS shall environmentally qualify all electrical equipment according to the provisions of 10 CFR 50.49." The licensees reported that, as of September 27, 1985, all electrical equipment in the Palo Verde plant has successfully completed environmental qualification, except for the hydrogen recombiner system. By letter dated September 30, 1985, the licensees requested an extension beyond the November 30, 1985 approved deadline for environmental qualification of the hydrogen recombiner system.

The licensees' September 30, 1985 letter provided the history of events which led to the extension request. The skid-mounted hydrogen recombiner system for the Palo Verde plant (which is available to any of the units at the site) was designed and supplied by the Energy System Group of Rockwell International. The system, which includes two hydrogen recombiners and associated control panels, had previously completed qualification testing in 1983, but material discrepancies (in the control panels) were noted by Rockwell which compromised the testing results. As a result, a decision was made in 1984 to qualify an upgrade model of the control panels. The qualification criteria used for seismic considerations were much higher than the Palo Verde plant-specific requirements in order to envelope the requirements of all participating utilities.

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The qualification testing of the upgraded model was expected to be completed by April 30, 1985, but was delayed due to manufacturing problems and parts availability. On September 9, 1985, after successful completion of irradiation, aging and initial environmental testing, seismic testing was halted because of problems with the mounting of an internal lead shield in the control panel (used to provide radiation protection for certain components in the control panel). Following meetings with Rockwell, a plan was established to strengthen the design of the lead shield mounting and to reperform the seismic testing.

The hydrogen recombiner system currently at the Palo Verde site has the old control panels. The licensees informed the staff that upon successful completion of the seismic testing of the upgraded control panels, the new control panels will be shipped to the Palo Verde site and will replace the old panels while the remaining environmental qualification tests are being completed.

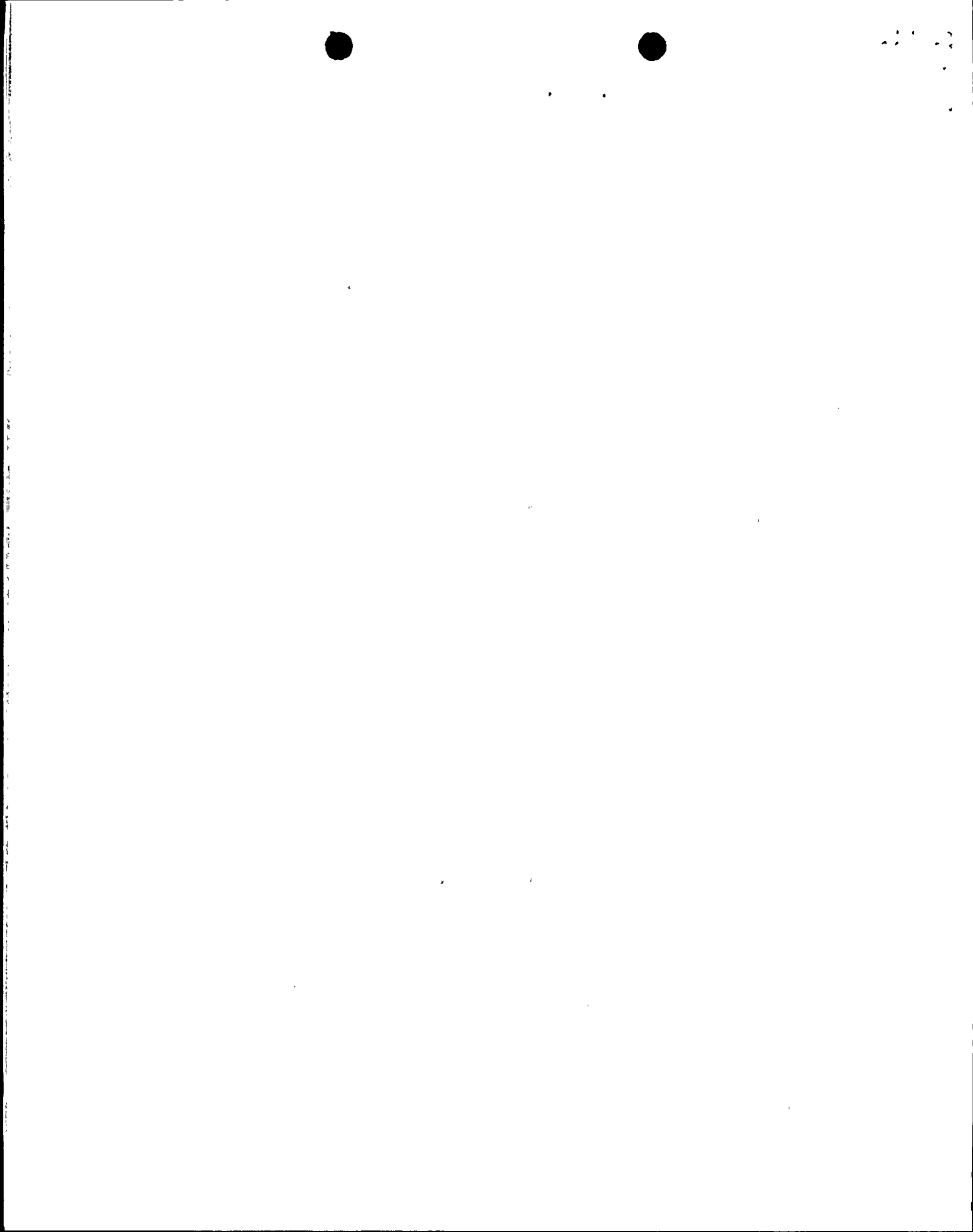
By March 30, 1986, the licensees expect to successfully complete all testing, have the new panels installed and have complete qualification documentation on file. On this basis, the licensees requested an extension to March 30, 1986 to complete the environmental qualification of the hydrogen recombiner system. In their letter of October 16, 1985, the licensees further requested that the Palo Verde Unit 1 license be amended to reflect the extension.

3.0 EVALUATION

The staff has reviewed the licensees' request and concludes that the above circumstances leading to the need for a schedule extension were not entirely within the licensees' control. Moreover, the limited equipment involved and the timely efforts to obtain qualified equipment indicate that the licensees have reasonably tried to comply with the requirements of 10 CFR 50.49.

In support of their request, the licensees have provided an acceptable justification for continued operation of Palo Verde Unit 1 until the qualification program of the hydrogen recombiner system has been successfully completed. APS states that the current hydrogen recombiner system at the Palo Verde plant has been demonstrated to be operable through hot functional testing. In addition, there is a hydrogen purge exhaust filtration unit at Palo Verde plant which is also capable of controlling hydrogen generation below its flammable limit during post LOCA conditions. Therefore, in the event that the current hydrogen recombiner system is unable to fully perform its intended safety function following a LOCA, the availability of the hydrogen purge cleanup system provides additional assurance that the required safety function can be performed.

On the basis of the above evaluation, the staff recommended that the Commission approve the request for extension.



4.0 COMMISSION ACTION

On November 18, 1985, the Nuclear Regulatory Commission, upon review of the staff's Paper SECY-85-334 which contained an analysis of and recommendations for the requested extension, issued a letter approving the request and directed the staff to proceed with the issuance of the license amendment.

5.0 CONTACT WITH STATE OFFICIAL

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

6.0 ENVIRONMENTAL CONSIDERATIONS

This amendment involves changes in the installation or use of facility components located within the restricted area. The staff has determined that the amendment involves no significant increase in the amounts 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 amendment involves no significant hazards consideration, and there has been no public comments on such findings. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Sec. 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 this amendment.

7.0 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.

Dated: **JAN 29 1986**



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JAN 29 1986

ISSUANCE OF AMENDMENT NO. 4 TO FACILITY OPERATING
LICENSE NPF-41 FOR PALO VERDE UNIT 1

DISTRIBUTION

Docket File 50-528

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