



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 1 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

Introduction

By letter dated July 12, 1985, as further supplemented by letter dated July 15, 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 an emergency change to the Technical Specifications (Appendix A to Facility Operating License NPF-41) for the Palo Verde Nuclear Generating Station, Unit 1. The July 15, 1985 letter confirmed the information provided by APS in a July 12, 1985 telephone call. The proposed change would revise Technical Specification 3.4.5.2, Action Statement b, on a one time basis only during the power ascension test program, in order to determine the pathway of unidentified leakage in the reactor coolant system.

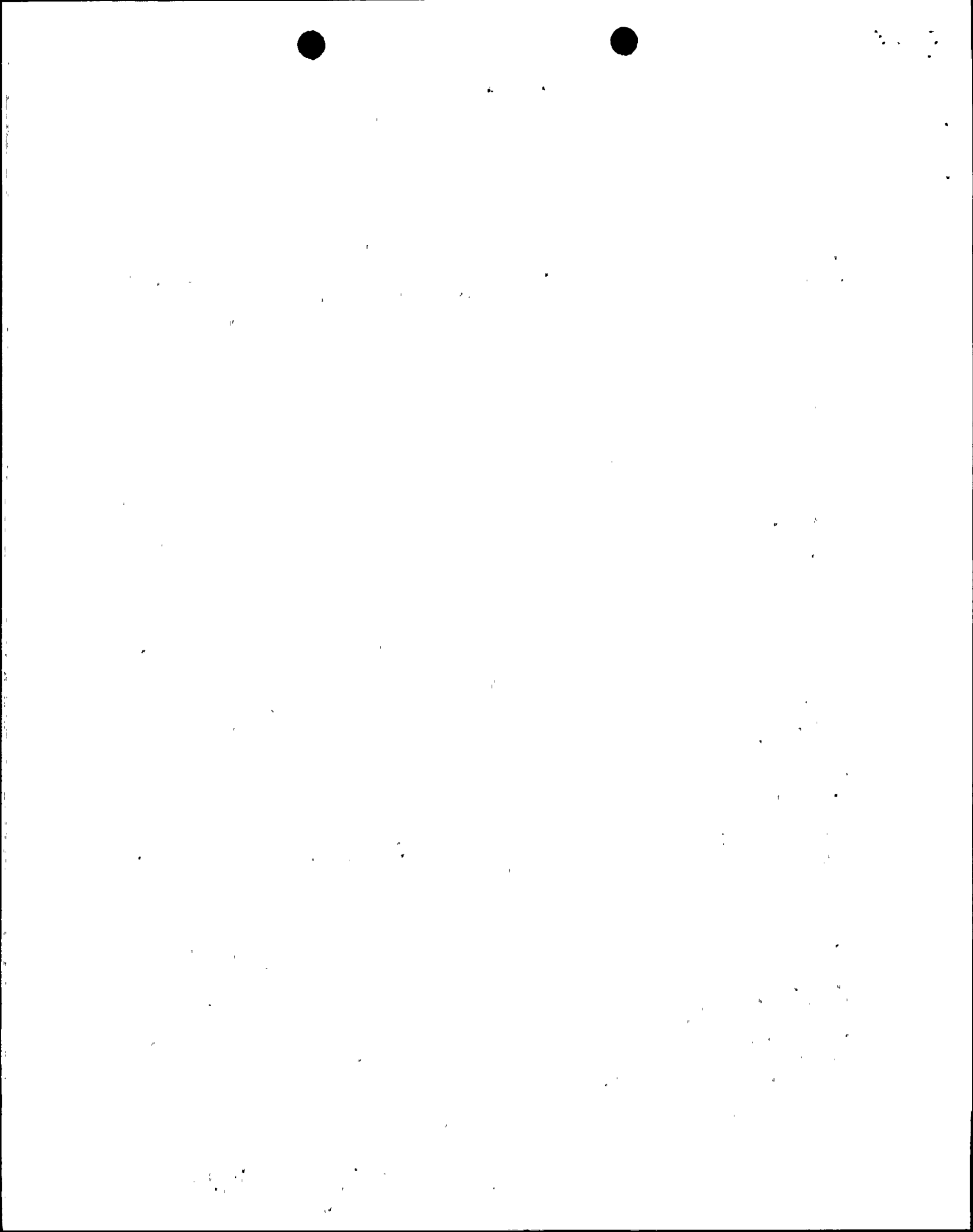
Discussion

Palo Verde Unit 1 is currently conducting its power ascension test program. On July 11, 1985, during routine monitoring of the reactor coolant system, APS determined an unidentified leakage rate from the system of 1.2 gallons per minute (gpm). The 1.2 gpm exceeds current Technical Specification 3.4.5.2 limit of 1.0 gpm for unidentified leakage from the reactor coolant system. Action Statement b for this technical specification requires that the leakage rate be reduced to within the 1.0 gpm limit within four hours or be in at least HOT STANDBY within the next six hours and in COLD SHUTDOWN within the following thirty hours.

By letters dated July 12 and 15, 1985, APS stated that in accordance with Technical Specification 3.4.5.2, Action Statement b was entered into for Palo Verde Unit 1 on July 11, 1985 and the plant was taken to hot standby. As of July 12, 1985, the unidentified leakage had still not been resolved and the plant would be required to be in cold shutdown within 30 hours.

In its submittal, APS requested a one time change to Technical Specification 3.4.5.2 to allow maintaining the plant in hot standby for an additional 72 hours. This time extension request is to (1) allow additional time to determine the leakage pathway (under conditions of temperature and pressure more conducive to detection) prior to entering cold shutdown and (2) take additional reactor coolant system inventory data to verify the inventory calculations.

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APS states that inventory surveillance requirements for the reactor coolant system have been increased to at least once per eight hours. APS also states that, if the unidentified leakage is determined to increase to greater than 2.0 gpm during the requested 72 hour time extension, Palo Verde Unit 1 will proceed directly to cold shutdown. In addition, APS states that the current activity level in the reactor coolant system (2.1×10^{-2} $\mu\text{Ci/cc}$) is approximately 200 times lower than that assumed in the accident analyses since the plant is in the early startup testing phase.

Evaluation

This proposed change falls into the category of an emergency change since failure of the NRC to take action would result in Palo Verde Unit 1 going to cold shutdown before the source of the unidentified leakage was found, thus causing a delay in the continuation of the present power ascension program until the request is granted.

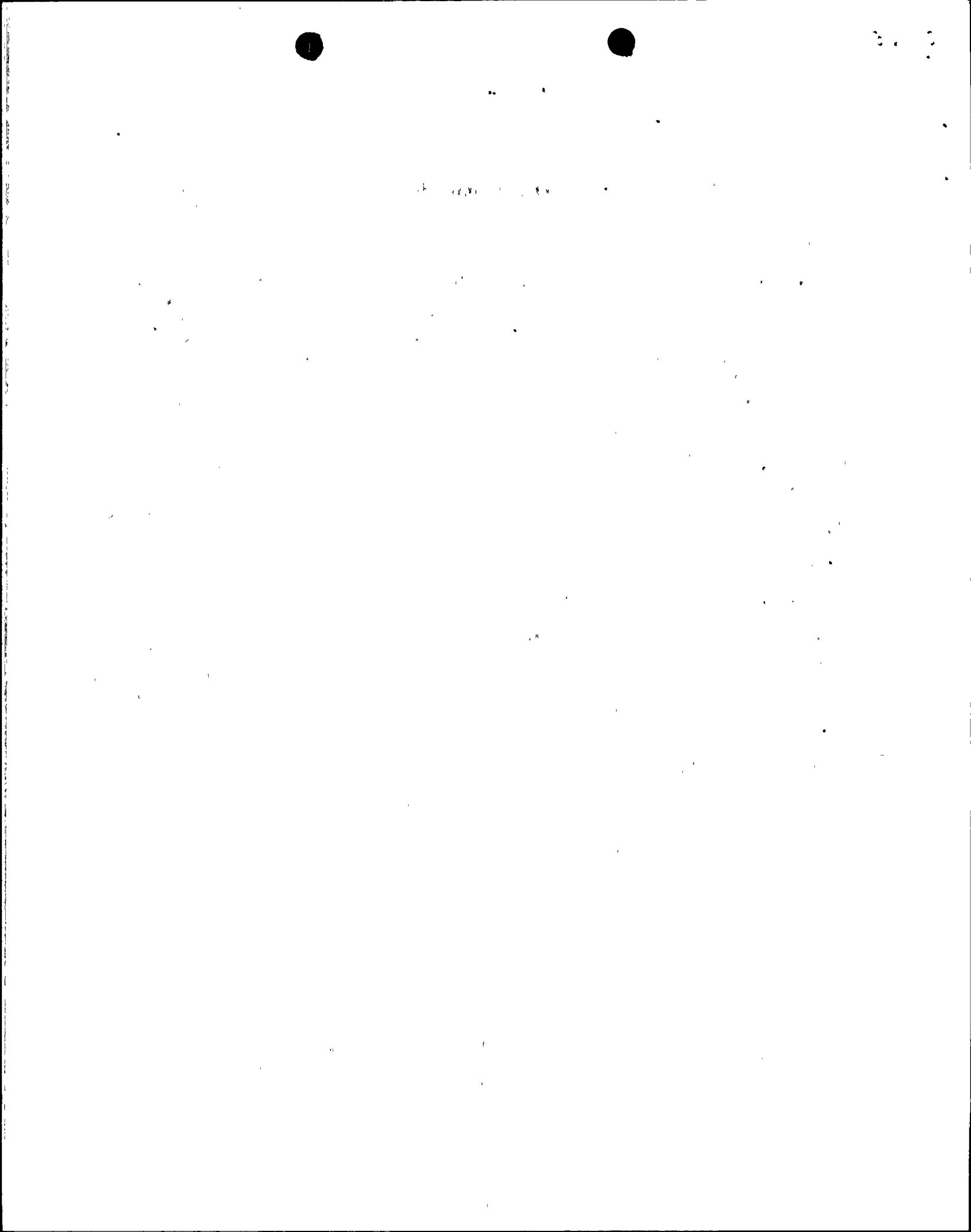
The need for the proposed action was not determined until July 12, 1985. The staff has reviewed the facts concerning the request and concludes that APS has made a timely submittal, that the power ascension program cannot proceed without NRC action, and that action by the licensees could not preclude this situation.

The action requested by the licensees is to change, on a one time basis only, Action Statement b in Technical Specification 3.4.5.2 to allow the plant to remain in hot standby an additional 72 hours in order to determine the pathway of the unidentified leakage under conditions more conducive to detection. During this time, the inventory surveillance requirements have been increased to at least once every eight hours. In addition, if the unidentified leakage increases to over 2.0 gpm during this time, the plant will proceed directly to cold shutdown.

The staff has reviewed the information submitted by the licensees. In view of (1) the fact that the plant was subcritical, (2) the increased level of inventory surveillance, and (3) the low level of activity in the primary system, the staff finds that the requested additional limited time in hot standby to identify the leakage pathway is prudent and, therefore, acceptable. Staff approval of the request was granted to APS by phone on July 12, 1985.

Environmental Consideration

The staff has determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, the staff has further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR Part 51.5(d)(4), that an environmental impact statement, or a negative declaration and environmental impact appraisal, need not be prepared in connection with the issuance of that amendment.



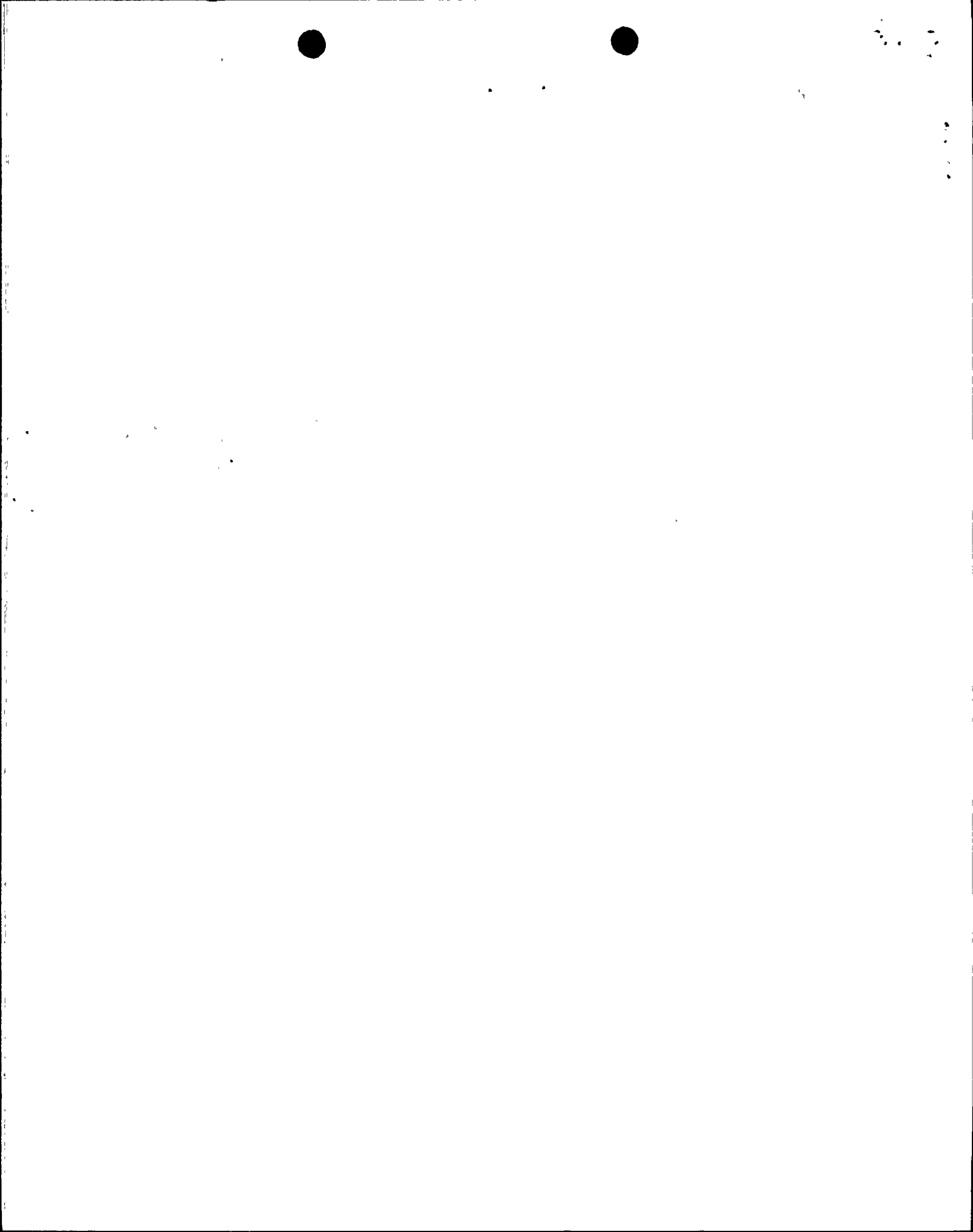
Final No Significant Hazards Consideration Determination

The State was informed by telephone on July 12, 1985 of the staff's proposed no significant hazards consideration determination. The State contact had no comments on the proposed determination. The Commission has provided certain examples (48 FR 14870) of actions likely to involve no significant hazards considerations. The licensees' request in this case does not match any of those examples. However, based on the review of the licensees' submittal as described herein, the staff has made a final determination that the licensees' amendment request does not involve a significant hazards consideration since operation of Palo Verde Unit 1 with the requested change would not (1) involve a significant increase in the probability or consequences of an accident previously analyzed since the duration of the change is for a limited time only and the activity in the reactor coolant system at the time is 200 times less than that assumed in accident analyses, (2) create the possibility of a new or different kind of accident from any accident previously analyzed since the change does not allow exiting from the design basis envelopes for any of the accidents previously analyzed, and (3) involve a significant reduction in a margin of safety because of the reasons cited above for (1) and (2) and since the plant will be subcritical during the limited time that the change is in effect.

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.

Dated: AUG 5 1985



ISSUANCE OF AMENDMENT NO. 1 TO FACILITY OL NPF-41 FOR
PALO VERDE UNIT 1

DISTRIBUTION

Docket File 50-528

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