



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 17 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 October 2, 1986, 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 for Palo Verde Nuclear Generating Station, Unit 1 (Appendix A to Facility Operating License NPF-41). The application requests that Technical Specifications 3/4.6.1 and 3/4.6.2 be revised to be consistent with those same Specifications in the Palo Verde, Unit 2 and Unit 3 Technical Specifications (Appendices A to Facility Operating Licenses NPF-51 and NPF-65, respectively) previously reviewed and approved by the staff.

2.0 DISCUSSION

The performance of the existing containment spray system for PVNGS, Unit 1 is based on a single train flowrate of 3,740 gpm. In order to increase the containment spray performance margin for technical specification surveillance testing and to account for a possible future reduction of flowrate, the licensees performed an analysis based on an assumed reduced flowrate of 3,525 gpm for the containment spray pump. The resultant containment peak accident pressure, based on this new assumed flowrate, increased from 49.2 to 49.5 psig, which is well within the containment design pressure of 60 psig.

All except one of the changes in the Technical Specifications requested by the licensees result from the revised containment pressure analysis. The remaining change involves a clarification for the containment air lock door. Specifically, the proposed revisions to the Technical Specifications consist of the following:

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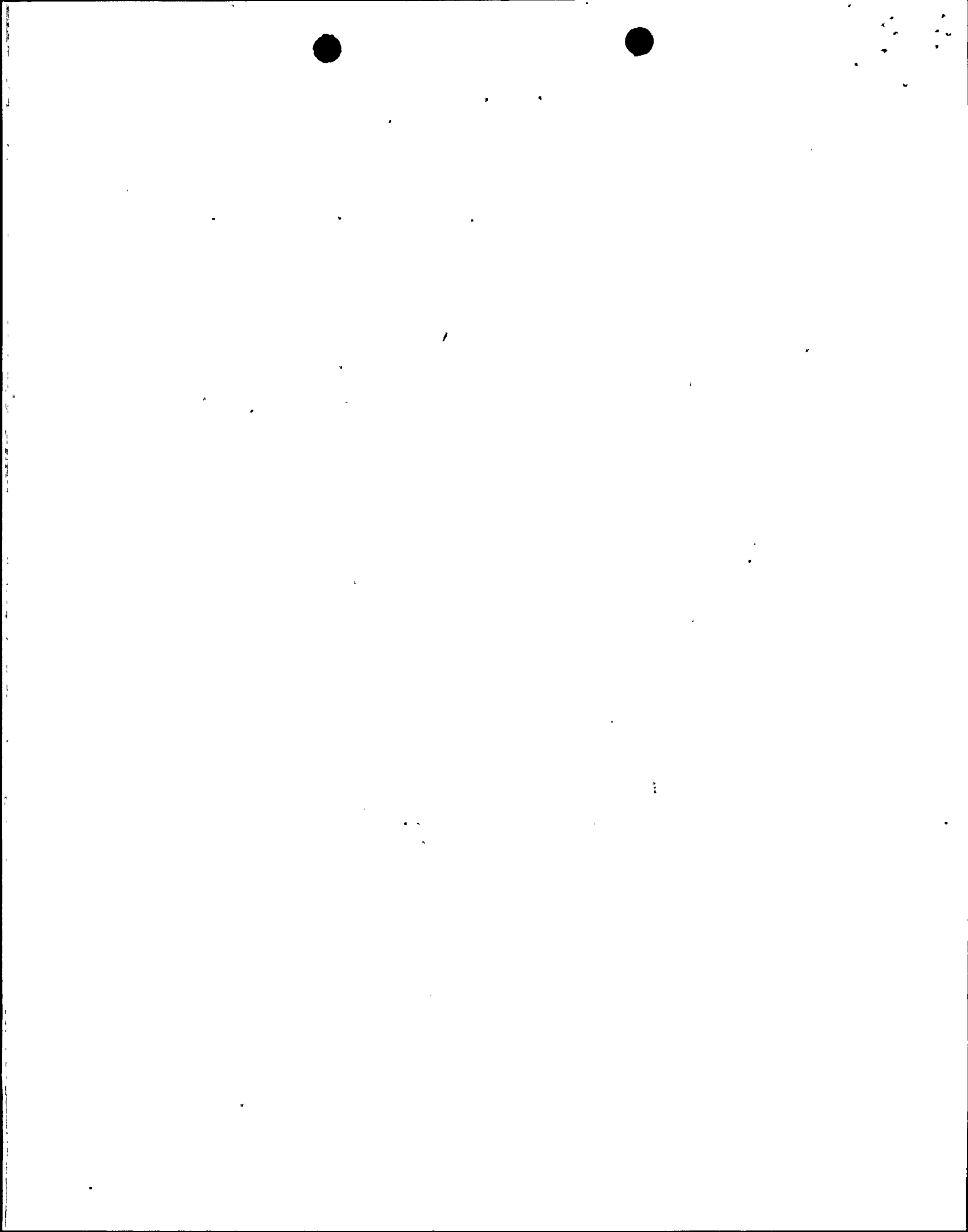
- (a) Limiting Conditions for Operation 3.6.1.2.a, 3.6.1.3.b and Surveillance Requirements 4.6.1.1.c, 4.6.1.2.a, 4.6.1.2.d, 4.6.1.3.b and associated Bases sections: change the containment peak accident pressure (Pa) from 49.2 psig to 49.5 psig based upon the results of the revised containment analyses. Also, the reduction in flowrate does not adversely affect the evaluation of ECCS performance since that evaluation is based on a maximum flowrate to obtain the minimum containment backpressure. In addition, the flowrate reduction has a minimal effect on the containment temperature analysis and does not increase the environmental qualification temperature envelope for affected equipment.
- (b) Surveillance Requirement 4.6.2.1.b: change the containment spray pump differential pressure requirement from 273 psid to 257 psid. This change is in accordance with the assumptions used in the revised containment analyses where the containment spray pump flowrate was reduced in order to increase operating margins. This change is also based upon the results of the revised containment analyses.
- (c) Action Statement a.1 of Limiting Condition for Operation 3.6.1.3: add a clarification note to the Action Statement to allow for the opening of the outer containment air lock door to facilitate the repair of an inoperable inner air lock door. The clarification also limits the allowable time spent with the outer air lock door open to one hour per year.

### 3.0 EVALUATION

The staff's evaluation of the licensees' proposed amendment request is presented in the following discussion.

Item (a) of the proposed changes is a result of the reduction of the flowrate of the containment spray system from 3,740 gpm to 3,525 gpm. This change in the flowrate results in an increase of containment peak accident pressure from 49.2 to 49.5 psig. Since the increase in pressure is still well within the containment design pressure of 60 psig, it does not present a concern to the integrity of the containment structure. Therefore, this proposed change is acceptable.

Item (b) is in accordance with the assumptions used in the revised containment analyses and the reduced containment spray pump flowrate as explained in Item (a). During the pre-operational and surveillance tests, it has been observed that there is a very small margin between the technical specification requirements for containment spray pump differential pressure (273 psid at the minimum recirculation flow) and the actual test results. In order to avoid plant unavailability, the licensees propose to change the differential pressure for containment spray pump to 257 psid. This proposed change is consistent with the containment spray system flow assumption of 3,525 gpm used in the revised containment analyses and, therefore, is acceptable.



Item (c) of the proposed changes allows for the opening of the outer containment air lock door to facilitate the repair of an inoperable inner air lock door. Generally, an inoperable inner air lock door is a closed door that has not met the surveillance leakage testing requirements for operability. Since the cumulative time for an open outer door is limited to one hour per year and the inoperable inner door would normally be closed, the proposed change is acceptable.

The staff had previously reviewed and approved the above changes for Palo Verde, Units 2 and 3, which are identical to Palo Verde, Unit 1, prior to issuing the Technical Specifications for Units 2 and 3. The proposed changes on Unit 1 make these portions of the Unit 1 Technical Specifications consistent with those previously approved on the Unit 2 and Unit 3 Technical Specifications.

Therefore, the staff concludes that the proposed changes to the Palo Verde, Unit 1 Technical Specifications are 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 this request for changes to the Technical Specifications. No comments were received.

#### 5.0 ENVIRONMENTAL CONSIDERATIONS

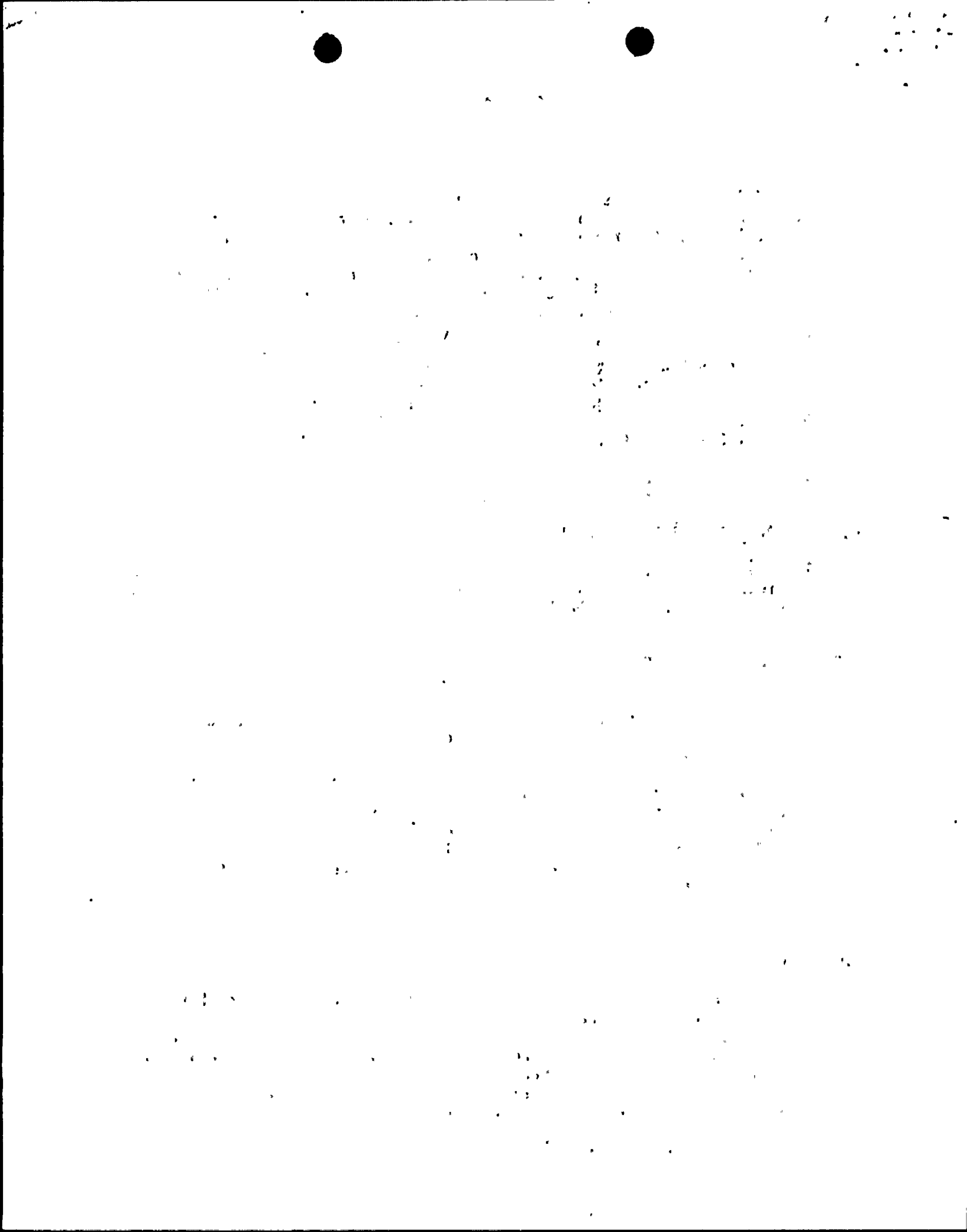
This amendment involves a change in the installation or use of facility components located within the restricted area. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued proposed findings that the amendment involves no significant hazards consideration, and there has been no public comment 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 Section 51.22(b) no environmental impact statement or environmental assessment need to 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: R. Lipinski

Dated: June 3, 1987



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