



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 112 TO PROVISIONAL OPERATING LICENSE NO. DPR-13

SOUTHERN CALIFORNIA EDISON COMPANY

SAN DIEGO GAS AND ELECTRIC COMPANY

SAN ONOFRE NUCLEAR GENERATING STATION, UNIT NO. 1

DOCKET NO. 50-206

1.0 INTRODUCTION

By letter dated August 31, 1987, Southern California Edison Company requested changes to the Technical Specifications for San Onofre Nuclear Generating Station, Unit 1 (SONGS 1). The first change is to revise Technical Specification 3.9 "Core Average Burnup" to be a moderator temperature coefficient specification. The second change is to Technical Specifications 3.10 and 3.11 "Incore Instrumentation" and "Continuous Power Distribution Monitoring" to incorporate more frequent correlation verification of the excore axial offset monitoring instrumentation and to revise the formula for determining incore axial offset.

2.0 EVALUATION

Specification 3.9 "Core Average Burnup" serves to establish a core burnup limit for the SONGS 1 core. The intention is to maintain the core within the end-of-life (EOL) design limits in the safety analysis. The moderator temperature coefficient (MTC), which becomes more negative as the fuel accumulates burnup, is the limiting safety analyses assumption. Thus, restricting MTC will accomplish the same thing as restricting core average burnup. The proposed change will restrict the MTC to a value less negative than that assumed in the safety analyses. In order to ensure that the limit is not exceeded the MTC will be measured within 7 effective full power days (EFPD) of reaching a boron concentration of 300 ppm. This measurement will be compared with a predetermined value that has considerable margin to that assumed in the limiting steam break analysis. If the measured value exceeds the predetermined value, additional measurements will be made every 14 EFPD for the remainder of the cycle to ensure that the limit is not exceeded.

This proposed Technical Specification is an improvement in that it relies on a measurement late in cycle life rather than a calculation. For this reason, we find it acceptable. In addition, it is similar to the Standard Technical Specification.

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Technical Specifications 3.10 and 3.11 relate to the incore instrumentation and limits of axial offset for power operation. The instrumentation and limits are necessary to assure that the core physics are maintained in a manner consistent with the assumptions in the applicable safety analyses. The proposed change to Technical Specification 3.10 will require a fixed interval of 180 EFPD for the correlation verification of incore versus excore data. The revision to Technical Specification 3.11 adds a new term to account for any differences encountered in the monthly correlation check by restricting core operating limits. The addition of mode applicability of "MODE 1" above 90% RATED THERMAL POWER and a 1 hour action time to reduce power merely adds to the Technical Specifications what has been general practice. These changes to Technical Specifications 3.10 and 3.11 are conservative and we find them acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

Pursuant to 10 CFR 51.21, 51.32, and 51.35, an environmental assessment and finding of no significant impact have been prepared and published in the Federal Register on October 28, 1988 (53 FR 43789). Accordingly, based upon the environmental assessment, the Commission has determined that the issuance of this amendment will not have a significant effect on the quality of human environment.

4.0 CONCLUSION

We have 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.

Principal Contributor: M. Chatterton

Dated: October 28, 1988