



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. DPR-80
AND AMENDMENT NO. 2 TO FACILITY OPERATING LICENSE NO. DPR-82
PACIFIC GAS AND ELECTRIC COMPANY
DIABLO CANYON NUCLEAR POWER PLANT, UNITS NO. 1 AND 2
DOCKET NOS. 50-275 AND 50-323

INTRODUCTION

By letter dated August 27, 1985 Pacific Gas and Electric Company (PG&E) submitted License Amendment Request LAR 85-08 requesting changes to the Diablo Canyon Nuclear Power Plant Units 1 and 2 combined Technical Specifications 3/4.3.1, "Reactor Trip System Instrumentation," (Reference 1). This would modify the reactor trip circuitry by changing the anticipatory reactor coolant pump (RCP) breaker position trip logic for above P-8 (i.e., 35% rated thermal power) from the current one-out-of-four logic to a two-out-of-four logic. This change to the Technical Specifications deletes Item 19.a - "Reactor Coolant Pump Breaker Position Trip - Above P-8", deletes the associated Action Statement No. 9 and makes the necessary editorial changes. The changes are applicable to Unit 1 and Unit 2 and require an amendment to the license for each Unit.

EVALUATION

The signal of the RCP breaker position is transmitted to the Solid State Protection System (SSPS) through a line powered by a 120-V ac inverter. This signal can be affected by spurious voltage fluctuations or inadvertent interruption of power to the transmission line. This causes a reactor trip when the one-out-of-four logic is satisfied. The SSPS logic inputs for a reactor trip caused by the RCP breaker position are currently a function of power level: between P-7 (i.e., 10% of rated thermal power) and P-8 (i.e., 35% of rated thermal power) a minimum two-out-of-four breaker open indications are required for a reactor trip; above P-8 a minimum one-out-of-four breaker open indication is required.

The staff has previously evaluated and approved the same two-out-of-four logic for the similarly designed Westinghouse 4-loop PWR Trojan Nuclear Plant (Reference 2), the Byron Station, Units 1 and 2 (Reference 3) and the Braidwood Station (Reference 4) for power levels above 10% of rated thermal power.

The staff has reviewed the requested Technical Specification changes and circuitry modifications and concludes that they will reduce spurious and unnecessary reactor trips and associated thermal cycling of the reactor coolant system. The staff further concludes that the RCP breaker trip is not credited in the accident analyses and, therefore, the requested Technical Specification change and circuitry modifications are acceptable.

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CONTACT WITH STATE OFFICIAL

The NRC staff has advised the Chief of the Radiological Health Branch, State Department of Health Services, State of California, of the proposed determination of no significant hazards consideration. No comments were received.

Environmental Consideration

These amendments involve a change in the installation or use of the facilities components located within the restricted areas as defined in 10 CFR 20. The staff has determined that these 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 a proposed finding that these amendments involve no significant hazards consideration and there has been no public comment on such finding. Accordingly, these 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 need be prepared in connection with the issuance of these amendments.

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, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

REFERENCES

1. Letter DCL-85-279 from D. A. Brand (PG&E) to H. R. Denton (NRC) dated August 27, 1985, Subject: LAR 85-08.
2. Letter from R. A. Clark (NRC) to C. Goodwin, Jr. (Portland Gas Electric Company) dated July 10, 1980, Subject: Amendment 46 to NPF-1 for Trojan Plant.
3. NUREG-0876, Safety Evaluation Report, Byron Station, Units 1 and 2, U. S. Nuclear Regulatory Commission, February 1982, Sections 7.2 and 15.2
4. NUREG-1002, Safety Evaluation Report, Braidwood Station, Units 1 and 2, U. S. Nuclear Regulatory Commission, November 1983, Section 7.0

Dated: December 23, 1985

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