



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

SAFETY EVALUATION REPORT

RELATED TO AMENDMENT NO. 38 TO FACILITY OPERATING LICENSE NPF-9

AND TO AMENDMENT NO. 19 TO FACILITY OPERATING LICENSE NPF-17

DUKE POWER COMPANY

INTRODUCTION

By letter dated August 31, 1984, the licensee requested amendments to license Nos. NPF-9 and NPF-17 which would change Technical Specifications to implement the use of time overcurrent trips of the circuit breakers for emergency diesel generators. These time overcurrent trips are designed to prevent the destruction of a diesel generator in the event of a multiphase fault on a switch gear bus. Supplemental letters of October 4 and 26, 1984, clarified the proposed change. The staff's evaluation of this proposed change to the Technical Specifications is presented herein.

EVALUATION

Technical Specification 4.8.1.1.2.e.7.c presently requires verification that all automatic diesel generator trips except engine overspeed, lube oil pressure and generator differential are automatically bypassed upon loss of voltage on the emergency bus concurrent with a safety injection signal. The proposed change to the Technical Specifications would also except time overcurrent trips of the diesel generator circuit breakers from this requirement to be automatically bypassed.

In the event of a multiphase bus fault, the proposed time overcurrent protective device would trip the diesel generator breaker only. The diesel generator associated with that bus would continue to operate and could be manually reconnected to the associated bus after the bus fault is removed and the lockout relay is reset. Without the protective trip, a multiphase bus fault could quickly destroy the diesel generator. There is a small probability that safety injection would be required when the diesel generator breaker is spuriously tripped; however, for this event the redundant emergency power division is available to perform the safety function.

Regulatory Guide 1.9 recommends that protective trips which are not automatically bypassed by a safety injection signal (except engine overspeed and generator differential) have two or more independent measurements for each trip parameter with coincident logic to minimize spurious trips. In addition, Regulatory Guide 1.9 recommends that the bypass circuit include the capability for testing circuit status and operability and for alarming abnormal values of bypassed parameters in the control room. The proposed generator time overcurrent trip circuits meet these criteria in Regulatory Guide 1.9.

Based on our review, we conclude that the proposed change to Technical Specification 4.8.1.1.2.e.7.c to implement the use of time overcurrent trips of diesel generator circuit breakers meets regulatory requirements and is, therefore, acceptable.

ENVIRONMENTAL CONSIDERATION

The amendments involve a change in use of facility components located within the restricted area as defined in 10 CFR Part 20. The staff has determined that the 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 have been no public comments on such findings. Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR Section 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 the amendments.

CONCLUSION

The Commission made a proposed determination that the amendments involve no significant hazards consideration which was published in the Federal Register December 31, 1984 (49 FR 50801) and consulted with the state of North Carolina. No public comments were received, and the state of North Carolina did not have any comments.

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.

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Dated: February 1, 1985