



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

SAFETY EVALUATION REPORT

RELATED TO AMENDMENT NO. 4 TO FACILITY OPERATING LICENSE NPF-35

DUKE POWER COMPANY

NORTH CAROLINA ELECTRIC MEMBERSHIP CORPORATION

SALUDA RIVER ELECTRIC COOPERATIVE, INC.

INTRODUCTION

By letter dated May 7, 1985, Duke Power Company proposed changes to the Technical Specifications for Catawba Nuclear Station, Unit 1, with respect to ice condenser doors. The proposed changes are in response to an incident at Catawba Unit 1 in which 23 of the 24 pairs of ice condenser inlet doors were found to be blocked closed after 10 days of operation. The event revealed certain deficiencies in the Catawba Unit 1 Technical Specifications. By letter dated November 7, 1985, Duke Power Company modified its May 7, 1985, submittal to clarify the intent of the ice condenser door operability.

EVALUATION

The proposed changes to the Technical Specifications impose additional limitations for operation and additional surveillance requirements not presently in Specification 3/4.6.5.3 in order to eliminate a concern that ice condenser doors which are required to be closed, but capable of opening during power operation, could be blocked in a closed position for an inordinate amount of time. If an ice condenser door is not capable of opening automatically, then the safety function of the Ice Condenser System (to provide pressure suppression capability to limit the containment peak pressure transient during LOCA conditions) is degraded because the flowpath of the LOCA mass and energy discharge through the ice condenser bays for heat removal is impeded.

The licensee's proposed amendments eliminate this concern by revising Technical Specification 3/4.6.5.3, "Ice Condenser Doors" and its associated bases to limit the allowed time of power operation with the ice condenser inlet doors in a closed and inoperable condition, and by clarifying the definition of "inoperable" to mean "not capable of opening automatically." The limit is implemented by adding to the action statement for Specification 3.6.5.3 a requirement that with one or more ice condenser doors inoperable (not capable of opening automatically), all doors shall be restored to operable status within 1 hour or the facility shall be in hot standby within 6 hours and in hot shutdown within the following 6 hours and in cold shutdown within the following 30 hours. The concern is further eliminated by changing surveillance Specification 4.6.5.3.1.b.(2) to require that the periodic surveillance verify that each ice condenser door is capable of opening automatically and that it is not impaired by ice, frost, debris or other obstruction (words underlined are added). The associated Bases 3/4.6.5.3 are also clarified consistent with these changes.

The change in the definition of "operable" and the change in the bases are a more appropriate representation and are, therefore, acceptable.

The change to the surveillance requirements will assure that man-made obstructions which could impair the doors from opening automatically, such as the blocking devices found to be left in place at Catawba Unit 1, are periodically verified not to be present. Such periodic verification, in conjunction with administrative procedures employed by the licensee (e.g., a tag-out and return verification procedure for each door blocking device) provides reasonable assurance that obstructions such as temporary blocking devices used during plant shutdown will not impair the ice condenser safety function. This change is, therefore, acceptable.

Furthermore, this change considers that impairment by ice, frost or debris would render the doors inoperable but capable of opening automatically because these conditions will result only in a slightly greater torque necessary to open the doors or a slight delay in door opening. The associated bases 3/4.6.5.3 clarified this consideration. The staff finds this change acceptable.

The staff finds that the limit of one hour for continued power operation which is allowed by the revised specification to restore all doors to operable status, including the specified periods to be in hot standby, hot shutdown and cold shutdown, is appropriate considering the safety significance of such operation and is sufficiently brief such that the probability of a LOCA occurring during this interval is so small as to be negligible. Accordingly, no undue risk is associated with such limited operation and the specification, as revised, is acceptable.

ENVIRONMENTAL CONSIDERATION

The amendment involves a change in use of facility components located within the restricted area as defined in 10 CFR Part 20 and changes in surveillance requirements. 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 exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there have been no public comments on such finding. Accordingly, the amendment meets 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 amendment.

CONCLUSION

The Commission made a proposed determination that the amendment involves no significant hazards consideration which was published in the Federal Register (50 FR 32793) on August 14, 1985, and consulted with the state of South Carolina. No public comments were received, and the state of South Carolina did not have any comments. The November 7, 1985, submittal clarified the intent of the change requested in the May 7, 1985, submittal. This clarified provision is reflected in the amendment. However, this clarification does not change the nature or the substance of the amendment noticed in the Federal Register on August 14, 1985.

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 the amendment will not be inimical to the common defense and security or to the health and safety of the public.

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