

SAFETY EVALUATION BY THE
OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 3
TO LICENSE NPF-5
DUKE POWER COMPANY

INTRODUCTION

By letter dated August 12, 1981 the licensee (Duke Power Company) proposed modifications to the Technical Specifications for the McGuire Nuclear Station, Unit 1 regarding the auxiliary feedwater low suction pressure instrument channels. The McGuire auxiliary feedwater (AFW) system consists of two motor driven pumps and one turbine driven pump normally aligned to take suction from the non-seismic condensate storage tank (CST). When low suction pressure is sensed at any AFW pump, its suction path is transferred from the CST to the seismically qualified nuclear service water system by opening two valves in series in that pump's suction path. There are two pressure switches in the suction line to each motor driven AFW pump. Low pressure must be sensed by both of these channels (one pressure switch per valve) to effect a transfer. There are four pressure switches in the suction line to the turbine driven AFW pump (two switches for each service water train) which operate in a similar fashion.

EVALUATION

Under the existing Technical Specifications action statement for these pressure channels, one each for the two valves in series, if one channel fails, the licensee has 48 hours to restore that channel to operable status before taking action to shutdown and cooldown the plant. However, another action statement is applied with more than one pressure channel inoperable which requires the plant be placed in hot standby within 7 hours, although the pressure channels are for valves in series.

The proposed modification would allow the licensee 48 hours to restore the inoperable pressure channel(s) for the valves in series for any one AFW pump to OPERABLE status before declaring the pump inoperable. Thus the same action statement would apply regardless of whether one or both pressure channels associated with any one AFW pump are inoperable. We conclude that this is acceptable since the failure of one or both channels results in the same effect on the AFW system (i.e., loss of capability to transfer AFW pump suction for one auxiliary feedwater pump). If inoperable channels are associated with more than one pump, then the associated pumps must be declared inoperable immediately.

We agree with the licensee's conclusion that this proposed change does not alter requirements for redundant AFW pumps and does not result in any adverse safety implications. This change also is consistent with the requirements of IEEE Std. 279, and therefore, is acceptable.

Environmental Consideration

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR Section 51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

DATE: AUGUST 28 1961