Docket Nos.: 50-369
and 50-370

1 DEC 1986

Mr. H. B. Tucker, Vice President
Nuclear Production Department
Duke Power Company
422 South Church Street
Charlotte, North Carolina 28242

Dear Mr. Tucker:

Subject: Corrections to SER for Amendments 65 and 46

My letter of November 18, 1986, transmitted Amendment No. 65 to Facility Operating License NPF-9 and Amendment No. 46 to Facility Operating License NPF-17 for the McGuire Nuclear Station, Units 1 and 2.

The first two pages of the Safety Evaluation for these amendments contained typographical errors. Enclosed are the corrected pages.

Please replace pages 1 and 2 of the Safety Evaluation for Amendments 65 and 46 with the enclosed corrected pages.

Sincerely,

Darl Hood, Project Manager
PWR Project Directorate #4
Division of PWR Licensing-A

Enclosure: As stated

cc: See next page

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Duke Power Company

McGuire Nuclear Station

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 65 TO FACILITY OPERATING LICENSE NPF-9

AND AMENDMENT NO. 46 TO FACILITY OPERATING LICENSE NPF-17

DUKE POWER COMPANY

DOCKET NOS. 50-369 AND 50-370

McGUIRE NUCLEAR STATION, UNITS 1 AND 2

INTRODUCTION

By letter dated December 12, 1985, Duke Power Company, the licensee for McGuire Nuclear Station, Units 1 and 2, requested a change to Technical Specification (TS) surveillance requirement 4.2.5 and its referenced Table 3.2-1 "DNB (departure from nucleate boiling) parameters" for the Reactor Coolant System average temperature (Tavg) and the pressurizer pressure associated with station instrumentation. The existing TS specifying limits for these DNB related parameters does not account for indication instrumentation measurement uncertainties and therefore requires that the measured values, as given by station indication instrumentation, be adjusted for instrumentation uncertainties prior to comparison with the proposed parameter limits of TS Table 3.2-1. The requested amendments would adjust these parameters to include the instrumentation uncertainties, allowing direct comparison against measured values, as indicated on station instrumentation. Associated TS Bases 3/4.2.5 "DNB Parameters" would also be revised to reflect the proposed changes to TS 4.2.5 and Table 3.2-1.

These changes for pressurizer pressure limit in Table 3.2-1 would also correct typographical errors in the existing value and unit (existing value "> 2230 psai"should have been "> 2220 psia" based upon the values assumed in the FSAR safety analyses) and would express this limit in units of psig rather than psia.

The requested changes to Table 3.2-1 would delete all entries regarding three-loop operation. (Such limits had been left blank and were intended for future amendments pending NRC approval of three-loop operation.)

EVALUATION

McGuire Technical Specification 3.2.5, Limiting Condition for Operation for DNB Parameters, requires that the Reactor Coolant System average temperature and pressurizer pressure be maintained within the limits specified in Table 3.2-1. Associated surveillance specification 4.2.5 requires that these temperature and pressure parameters in Table 3.2-1 be periodically verified to be within their specified limit. Table 3.2-1 specified that the coolant average temperature should be no higher than 593°F and the pressurizer pressure should be no lower than "2230 psai".

The staff finds that the safety analyses for McGuire were based upon a pressurizer pressure limit no lower than 2220 psia. Therefore, the value in Table 3.2-1 prior to these amendments, 2230 psia. was overly conservative and resulted from a typographical error. This error is corrected in the present amendments in that the changes for pressurizer pressure (discussed below) are based upon the intended value, 2220 psia. The revised pressurizer pressure limits are also specified in units of psig, rather than psia, because station indication instrumentation is in psig.

The revision to Table 3.2-1 by these amendments substitutes new values for the "Reactor Coolant System Tavg" and "Indicated Pressurizer Pressure" respectively. Values are given in the revised table for indication by instrument meters or computer readout available to the station operators. The limits in the revised table are adjusted by appropriate uncertainties in the indicating system so that the limits previously in the Technical Specifications (as corrected for the error in pressurizer pressure) are maintained. Accordingly, surveillance specification 4.2.5 is changed to require that these parameters in Table 3.2-1 be periodically measured by averaging the indications (meter or computer) of the operable channels and verified to be within the revised specified limits. Associated Bases 3/4.2.5, "DNB Parameters," is supplemented to note that (1) the "indicated Tavg values and the indicated pressurizer pressure values correspond to analytical limits of 592.6°F and 2220 psia respectively, with allowance for indication instrumentation measurement uncertainty", and that (2) "the indication instrumentation measurement uncertainties are accounted for in the limits provided in Table 3.2-1."

The revised Table 3.2-1 differentiates between limits for the case of four operable channels and the case of three operable channels. This is appropriate because parameter uncertainty associated with the average of four independent channels is different than that for the average of three independent channels. Similarly, the revised table differentiates between limits for indications provided by analog meters and those provided by digital computers because channel accuracy associated with these two information sources differs.

We find that the uncertainty allowances contained in the licensee's letter of December 12, 1985, and used for the revised limits, are appropriate. Since conformance with the previous Specification requires that the same station indication instrumentation in the new Specification be adjusted for instrumentation uncertainties prior to comparison with the specified limits, the change is essentially administrative, and does not change the safety of the station. We therefore find the revised limits as discussed, including the associated wording changes and revised Basis in the licensee's submittal, acceptable.

Prior to these amendments, Table 3.2-1 had included provisions for limits during operation with three reactor coolant loops in operation. No actual values had been specified; rather, this portion of the table had been intended for future application pending licensee analyses and NRC approval of such operation. In accordance with the licensee's request, the present amendments delete these provisions for including possible future three-loop operation values. The revised Table 3.2-1, therefore, applies only for four-loop operation. Deletion of such provisions does not affect safety and is purely administrative; this change is, therefore, acceptable.