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M.S. TUCKMAN  
Vice President  
Nuclear Operations  
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**DUKE POWER**

December 19, 1990

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555

Subject: McGuire Nuclear Station  
Docket Nos. 50-369 and 50-370  
Proposed Technical Specifications Changes  
Unit 1 Cycle 7 Moveable Incore Detector Thimble Reduction  
(T.S.'s 3/4.2.2, 3/4.2.3, 3/4.2.4, 3/4.3.1, and 3/4.3.3.2)

Gentlemen:

Pursuant to 10CFR 50.4 and 50.90, attached are proposed license amendments to Appendix A, Technical Specifications, of Facility Operating Licenses NPF-9 and NPF-17 for McGuire Nuclear Station Units 1 and 2, respectively. The proposed amendments are a change for Unit 1 Cycle 7 to reduce from 75% to 50% the number of available moveable incore detector thimbles required for the Moveable Incore Detection System to be operable. These changes would allow continued operation of Unit 1 should a current problem with sticking detector thimbles become worse.

By letter dated August 3, 1989, Duke Power proposed a one-time only change for Unit 1 Cycle 6 to reduce from 75% to 50% the required number of available moveable incore detector thimbles. At that time, it was believed that the problem with sticking detector thimbles would be corrected permanently during the end-of-cycle 6 refueling outage. Despite extensive cleaning and repairs to the system during the outage, no significant resolution to the thimble sticking problem was achieved. The problem has worsened during the last several months such that currently, only a marginal number of thimbles required for system operability is being achieved. Failure to maintain the required minimum number of thimbles operable would result in a forced unit shutdown. Accordingly, these proposed license amendments are being submitted.

Attachment 1 contains the proposed Technical Specifications changes. Note that although the changes apply only for Unit 1 and there are no technical changes to the Unit 2 specifications, the Unit 2 Technical Specifications are administratively affected since they are combined into one specifications applying to both McGuire Units 1 and 2.

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Attachment 2 contains the justification and safety analysis for the proposed changes. Included in Attachment 2 are: a figure illustrating the location of recently accessible and inaccessible detector thimbles, figures illustrating comparisons of measured versus predicted core power distributions for recent flux maps taken, a figure depicting measured versus predicted peaking factors for Unit 1 Cycle 7, a figure depicting measured versus predicted boron concentration for Unit 1 Cycle 7, Unit 1 Cycle 7 zero power physics testing results, and an evaluation of thimble deletion on peaking factors for Unit 1 Cycle 7 performed by Westinghouse in support of the proposed changes. Both proprietary and non-proprietary versions of the Westinghouse thimble deletion evaluation are enclosed. Accordingly, it is requested that the information which is proprietary to Westinghouse be withheld from public disclosure in accordance with 10CFR 2.790 of the Commission's regulations. The accompanying Westinghouse authorization letter, affidavit, proprietary information notice, and copyright notice are also enclosed.

Pursuant to 10CFR 50.91, Attachment 3 provides the analysis performed in accordance with the standards contained in 10CFR 50.92 which concludes that the proposed amendments do not involve a Significant Hazards Consideration. Duke Power is forwarding a copy of this amendment request application and No Significant Hazards Consideration Analysis to the North Carolina Department of Human Resources. The proposed amendments have been reviewed and have been determined to have no adverse safety or environmental impact.

As was the case for the Technical Specification changes granted for McGuire Unit 1 Cycle 6, should these proposed amendments be granted for Cycle 7, Duke Power will commit to reducing unit power to 75% or less within four hours upon the inoperability of one excore power range detector occurring when the number of available thimbles is less than 75%. We will maintain this reduced power level until either the excore detector is returned to an operable condition or the number of available thimble locations is restored to at least 75%. We will ensure proper administrative implementation of these provisions at McGuire. In addition, should the number of available locations be less than 75%, we will utilize all available locations.

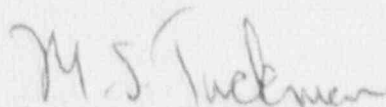
It is requested that review and approval of these proposed amendments be expedited in view of the recent history regarding availability of detector thimbles during Unit 1 Cycle 7 and the need for the use of the Moveable Incore Detection System for Technical Specification required monitoring/calibration functions in the near future. The inability to use the incore instrumentation system for these functions would result in a forced unit shutdown. The next Technical Specification required use of the system must be performed by December 26, 1990. Duke Power

Document Control Desk  
Page 3  
December 19, 1990

currently plans to wire brush the inside of the thimble tubes during the next refueling outage for Unit 1.

Should there be any questions concerning these proposed amendments or if additional information is required, please call L.J. Rudy at (704) 373-3413.

Very truly yours,



M.S. Tuckman, Vice President  
Nuclear Operations

LJR001/ljr

Attachments

xc: (W/Attachments)  
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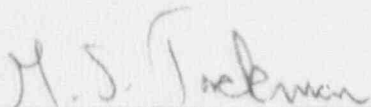
Mr. P.K. VanDoorn  
NRC Senior Resident Inspector  
McGuire Nuclear Station

Document Control Desk

Page 4

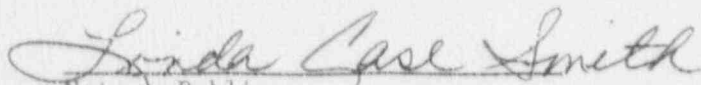
December 19, 1990

M.S. Tuckman, being duly sworn, states that he is Vice President of Duke Power Company; that he is authorized on the part of said Company to sign and file with the Nuclear Regulatory Commission this revision to the McGuire Nuclear Station License Nos. NPF-9 and NPF-17 and that all statements and matters set forth therein are true and correct to the best of his knowledge.



M.S. Tuckman, Vice President

Subscribed and sworn to before me this 19th day of December, 1990.

  
Notary Public

My Commission Expires:

May 6, 1995.