Date: 2/7/94

To: Jack Fox

From: H. J. Yang

Reference: Performance and Quality Evaluation Branch (RPEB) Feedback, Item 3

Subject: Response to NRC's Comment on Adding MRBM Test to SSAR Section 14.2.12.2.6

Dear Jack,

I have looked into the referenced NRC's comment on adding the MRBM testing information to SSAR Section 14.2.12.2.6 since the MRBM is a subsystem of the neutron monitoring system. However, I do not believe it is necessary to include such testing based on the following justifications:

A further study of the existing ABWR Tech Specs indicates that a channel functional test on the control rod block instrumentation is required to be done on the ATLM of the RCIS system rather than MRBM subsystem of the neutron monitoring system every 92 days at greater than 10% RTP (see Tech Specs SR 3.3.5.1.1). There is no surveillance testing requirement on the MRBM as addressed in the previous discussion with the staff. Unlike the other BWR plants, the ATLM enforces fuel operating thermal limits and is credited in the RWE safety analysis.

The MRBM subsystem is a backup of the ATLM in performing the rod block function. It is designed to assure that the MCPR and MLHGR do not violate fuel thermal safety limits. Thus, it would not be practical to demonstrate the MRBM rod block function by purposely challenging the fuel thermal safety limits. Additionally, the MRBM subsystem will be preoperationally tested as described in SSAR Subsection 14.2.12.1.15.

RG 1.68, Appendix A, Item 4i is met by implementing an absolute rod pattern (i.e., Ganged Withdrawal Sequence Restrictions) which completely specifies control rod withdrawals from the all-rods-in to the rated power configuration. Rod movements in a prescribed sequence are monitored by the Rod Worth Minimizer and Rod Action Control System which will prevent out-of-sequence withdrawal by issuing a rod block signal and used by the RCIS during low power operation (i.e., below the low power setpoint). A review of the recent BWR test experiences indicate that no additional testing information has been added for this aspect.

Therefore, it was concluded that the control rod withdrawal block function of the MRBM subsystem will not be demonstrated in SSAR Subsection 14.2.12.2.6 as requested in the referenced comments.

If you have any questions about this matter, please let me know.

H.J. Yang