

NIAGARA MOHAWK POWER CORPORATION

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SYRACUSE, N.Y. 13202THOMAS E. LEMPGES
VICE PRESIDENT—NUCLEAR GENERATION

August 20, 1986

Dr. Thomas E. Murley
Regional Administrator
United States Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

Subject: Response to Inspection Report No 50-220/86-09

Gentlemen:

This letter is in response to Notice of Violation enclosed as Appendix A to Inspection Report No. 50-220/86-09. This event violated Nine Mile Point Unit I Technical Specification 3.1.1.b(3)b which requires that whenever the reactor is below 20% power and less than 12 control rods have been withdrawn, no control rods shall be moved unless the Rod Worth Minimizer is operable. This event has been reported in Licensee Event Report 86-19.

Due to a software problem in the RWM program and inadequate procedural instructions for RWM operability testing following initial system startup, three control rods were moved while the RWM was inoperable. During the initial phases of the plant startup, the Reactor Analyst technician noticed that three rods were shown at a withdrawn position on the computer control rod display when they had not been withdrawn. Suspecting a problem, he discussed the situation with the reactor operator and it was decided to select an out-of-sequence rod to determine if the RWM was operable. When this was performed, the RWM did not display the expected select error. The Computer Department was notified of this situation and requested to investigate and repair the problem. They discovered that the RWM program was not running and restarted it. The reactor operator then ran the internal system diagnostic test, which is a software self-check. Following successful completion of the test, the operator assumed the RWM was operable and selected and pulled three rods in accordance with the rod sequence plan. At this time, a supervisor in the control room requested that an out-of-sequence rod be selected again to determine RWM operability. When a select error was not displayed, the RWM was again declared inoperable, the Computer Department was notified of the situation, and a shutdown was begun. In response to a request from the Computer Department, control rod insertions were stopped to facilitate discovery of the problem. The problem was identified to be an indexing error in the RWM software, which resulted in the process computer shutting down the RWM program. At no time during the event was a control rod moved out-of-sequence, and the withdrawal sequence that the operator was following had been established to limit rod worth in accordance with Technical Specifications.

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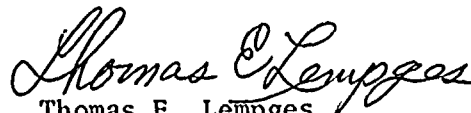
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The indexing problem in the RWM computer software which caused the system to fail has been corrected. In addition procedure N1-ST-V3 (Rod Worth Minimizer Operability Test) has been revised so that prerequisites do not prohibit system testing after control rods have been withdrawn. The new test revision provides a means for testing the Rod Worth Minimizer operability following a period of inoperability. Operator requalification, licensed operator, and simulator training programs will be modified to include discussion on rod worth minimizer failure and system operability test N1-ST-V3. This shall be incorporated in the next licensing class. Changes to operator requalification and simulator training will be incorporated by 9/1/86. Indications provided on the Rod Worth Minimizer control panel are also being modified to provide an indication for the operator on the present RWM control panel when an RWM program failure occurs. This modification should be completed by 10/30/86.

In addition, changes to resolve contradictions identified in Nine Mile Point Unit I Technical Specifications 3.1.1.b(3)(b) and 3.1.1.c are required. Technical Specification 4.1.1.b(3)(a)(iv) also needs to be revised or possibly deleted for reasons identified in Inspection Report 50-220/86-09. These changes are presently being developed.

Movement of control rods with an inoperable Rod Worth Minimizer resulted from software problems and lack of procedural instructions for RWM operability testing following initial system startup. The software problem has been corrected, and procedure N1-ST-V3 has been revised to provide means for testing RWM operability following a period of inoperability. In addition licensed operator, operator requalification, and simulator training will be modified to include additional discussion on RWM failures and operability testing. The RWM control panel is going to be modified to provide indication on an RWM program failure, and Technical Specifications are to be changed to resolve existing contradictions. These actions will help ensure that Technical Specifications for Rod Worth Minimizer operability during startup are met.

Very truly yours,


Thomas E. Lempges
Vice President
Nuclear Generation

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cc: Document Control Desk



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