

B. Ralph Sylvia  
Executive Vice President  
Nuclear

December 30, 1992  
NMP88306

United States Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555

RE: Nine Mile Point Unit 1  
Docket No. 50-220  
DPR-63

Gentlemen:

**SUBJECT: RESPONSE TO NOTICE OF VIOLATION - NRC COMBINED INSPECTION  
REPORT 50-220/92-24 AND 50-410/92-28**

Attached is Niagara Mohawk Power Corporation's response to the Notice of Violation contained in the subject Inspection Report dated November 23, 1992. We believe that the corrective actions described in this response have appropriately addressed the cause of this violation and will prevent recurrence. If you have any questions concerning this matter, please contact me.

Very truly yours,



B. Ralph Sylvia  
Exec. Vice President - Nuclear

BRS/GJB/lmc

Attachment

xc: Mr. T. T. Martin, Regional Administrator, Region I  
Mr. W. L. Schmidt, Senior Resident Inspector  
Mr. R. A. Capra, Director, Project Directorate I-1  
Mr. D. S. Brinkman, Senior Project Manager, NRR  
Records Management

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**NIAGARA MOHAWK POWER CORPORATION**

**NINE MILE POINT UNIT 1  
DOCKET NO. 50-220  
DPR-63**

**"RESPONSE TO NOTICE OF VIOLATION," AS CONTAINED IN  
INSPECTION REPORT 50-220/92-24 AND 50-410/92-28**

**VIOLATION 50-220/92-24-02**

As a result of an NRC inspection conducted on September 27 - October 31, 1992, and in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR 50 Part 2, Appendix C (1992), the following violation was identified:

"Nine Mile Point Unit 1 Technical Specification 6.8.1 states that written procedures shall be implemented that meet or exceed the requirements and recommendations of Reg Guide 1.33, which requires that administrative procedures be implemented for procedure review and use. Niagara Mohawk Power Corporation (NMPC) Nuclear Division Directive (NDD)-PRO-01 requires: 1) that surveillance procedures include statements of plant impact to include expected annunciators and alarms; and 2) that following the receipt of unexpected responses that procedures be stopped and the reasons for the alarms be evaluated.

Contrary to the above, on October 26, 1992: 1) reactor water level instrument trip testing per procedure N1-ISP-036-003 did not include a statement of plant impact for a valid low water level scram signal; and 2) following the receipt of an unexpected half reactor scram signal during the performance of N1-ISP-036-003, attachment one, the procedure was not stopped and the reason for the alarm was not evaluated. Specifically, the plant impact statement for this procedure did not specify that a low water level half-scram condition would occur during the performance of the test. Further, the plant impact statement incorrectly specified that a "turbine trip half-scram signal" and a "feedwater pump high level trip half-scram signal" would be received, however, these are not valid reactor scram features. Following the receipt of the initial unexpected half-scram, the procedure was continued. The subsequent performance of attachments two and three also caused half-scram conditions, without the full understanding of all shift operating personnel and without their complete knowledge of all expected test results. This is a Severity Level IV violation (Supplement 1)."

**I. THE REASONS FOR THE VIOLATION**

Niagara Mohawk admits to the violation as stated in Inspection Report 92-24. We concur that written procedure prerequisites as outlined in Nuclear Division Directive NDD-PRO, "Procedures and Orders," were not in place for Instrument Surveillance Procedure N1-ISP-036-003, "Hi/Lo Reactor Water Level Instrument Trip Channel Test/Calibration," as required by Technical Specification, Section 6.8.1, "Procedures".



We also concur that the actions taken by station operating personnel during performance of the three sections of the surveillance test which generated Low Reactor Water Level half-scam signals were neither consistent with management's expectations nor in compliance with Nuclear Division Directives.

A root cause evaluation was performed which attributed the violation to the following:

1. Procedure Inadequacy

Instrument Surveillance Procedure N1-ISP-036-003 did not meet current standards. The content of the procedure's Plant Impact Statement was not consistent with the site's Procedure Writer's Manual (PWM) guidance/direction. The PWM requires that surveillance steps which affect plant status identify the equipment operability and trip functions affected. The Plant Impact Statement as written was unclear and poorly developed.

The PWM also requires that if a procedure includes steps that result or could result in a reactor isolation or trip, that the step be preceded with a note/verification to advise Control Room operators. The subject surveillance procedure did not contain the note/verification step as required. This procedure was developed and issued prior to the implementation of the current procedure writer's guidelines. A program was in place to review/upgrade all Nine Mile Point Unit 1 Maintenance procedures. N1-ISP-036-003 was scheduled but had not yet received this review/upgrade.

2. Personnel Performance Inadequacy

The Station Shift Supervisor's actions did not meet management expectations; he did not exhibit adequate command and control. He permitted the test to continue even though there were procedure and/or potential equipment problems. Additionally, oral communication between the technician and the Station Shift Supervisor was inadequate to relay all the necessary information about the situation.

II. ADDITIONAL ISSUES IDENTIFIED

Concurrent with the completion of the root cause evaluation for the violation, an evaluation was also completed on the performance issues that arose during the surveillance test. The following issues were identified and addressed as part of the overall resolution to this event:

- A. The performance of required pre-job surveillance test functions by the Instrument and Control (I&C) technician prior to commencing the "Hi/Lo Reactor Water Level Instrument Trip Channel Test/Calibration," was less than adequate. Specifically, job pre-planning to assure all aspects of the procedure were fully understood, including test equipment response, was not sufficient. Although the technician had previously used this procedure, he had not previously performed the specific portion of the test which initiates the Low Reactor Water Level half-scam signal. As a result, the technician was unaware of the precise procedure step(s) that would bring in the half-scam, and subsequently failed to provide prior notification to the Control Room.
- B. The technician evaluated the half-scam condition following its initiation and correctly concluded that the plant responded as designed. However, the lack of understanding of the calibration test device operation caused the I&C technician to



incorrectly conclude when the trip value was not locked onto and displayed at the time of the low water level half-scam signal, that the test device was faulty. Specifically, the technician did not recognize that the procedure step being completed when the half-scam signal was initiated was not intended to be used to capture the low water level trip value. Also, the test equipment installation configuration at the time when this step was completed would not have allowed the trip value to be locked onto and displayed on the test equipment. Habit intrusion and successful past experience led the technician to believe there was something wrong with the test equipment when the expected trip value was not received. He failed to analytically deduce true cause. The test unit was not supposed to record the reactor water low level RPS trip value at this step in the procedure. The technician believed this value would be recorded.

- C. During the initial half-scam evolution, the technician and Station Shift Supervisor discussed the potential test equipment failure problem and the half-scam. At this point in the test evolution, the technician clearly understood that the meter movement calibration steps would bring in the half-scam. The Station Shift Supervisor also knew the half-scam would result from inputting a low level value but was concerned that the procedure did not have the appropriate note indicating the step when the half-scam would occur. Based on the technician's input, the Station Shift Supervisor also became concerned that the test equipment was apparently not functioning correctly. At this point the technician failed to adequately communicate the situation in a way that was fully and clearly understood by the Station Shift Supervisor. The Station Shift Supervisor failed to assure that he thoroughly understood the situation prior to allowing the test to continue.

### **III. CORRECTIVE ACTIONS TAKEN AND RESULTS ACHIEVED**

Two Deviation Event Reports (DER 1-92-3799 and DER 1-92-3844) were initiated following the event. The first, submitted by the I&C Department on the day of the event, identified the procedural weaknesses encountered during the testing sequence. The second, generated by the Operations Department, identified the lack of command/control by operators during the test evolutions. As part of the DER process, a Root Cause Analysis was completed to identify the causes for this violation. Subsequent to the Root Cause Analysis, the following corrective actions were initiated:

- Instrument Surveillance Procedure N1-ISP-036-003, "Hi/Lo Reactor Water Level Instrument Trip Channel Test/Calibration," has been revised and upgraded to the Procedure Writer's Manual's Plant Impact Statement requirements.
- A review was completed of other I&C Department surveillance test procedures involving a half-scam initiation to assure that the appropriate half-scam notifications were present. All were found adequate.
- The Station Shift Supervisor on duty during the event has been temporarily reassigned to non-shift duties. This individual will receive remedial training prior to being returned to shift assignment. Operations management has provided counseling to the Station Shift Supervisor, reinforcing expectations for the implementation of procedures in accordance with Nuclear Division Interface Procedures NIP-PRO-01, "Use of Procedures," and NIP-PRO-04, "Procedure Change



Evaluations." The Station Shift Supervisor was also counseled on his ineffective communication during the surveillance test activities.

- Following the event, the General Supervisor of Operations discussed the conditions which evolved during the surveillance test with each operating crew. During this review, management's expectations were reaffirmed concerning content and use of procedures.
- During the post-event reviews conducted by Operations and I&C management, the communication problems that existed between the Station Shift Supervisor and the I&C technician were evaluated and discussed with other operating shifts to see if they were potentially generic in nature. Based on these reviews and discussions, it was determined that this problem was an isolated instance.
- The I&C technician received counseling from the General Supervisor I&C Maintenance on the unsatisfactory performance factors encountered during the test activities following the termination of the surveillance test. Specifically, the importance of pre-job preparation and a thorough understanding of the test activities and test equipment was emphasized to the technician. Additionally, if questions or unexpected results arise during performance of the surveillance procedures, he should assure the situation is properly communicated and understood by the appropriate parties prior to continuing with the test.
- The General Supervisor I&C Maintenance and an I&C Generation Specialist discussed the operation of the calibration test device with each I&C crew. During this review, management's expectations concerning notification to the Control Room prior to half-scam/isolation testing were reaffirmed.
- A Lessons Learned Transmittal (LLT) was issued by the Operations Department following the event to summarize and communicate the causes for, experiences learned, and opportunities for improvement gained from the subject surveillance test evolution. This LLT will also be reviewed by Nine Mile Point Unit 2's Operations and Maintenance Departments during shift briefings.

#### **IV. ACTIONS TAKEN TO PREVENT RECURRENCE**

A training module is being developed to review with I&C technicians the operation of the calibration test device used during the Hi/Lo Reactor Water Level Trip Channel Test/ Calibration.

A Training Review Request was generated to insure that this event is discussed with Operations and I&C Department personnel during the next scheduled requalification/ continued training cycle. Additionally, applicable portions of Nuclear Division Interface Procedures NIP-PRO-01, "Use of Procedures," and NIP-PRO-04, "Procedure Change Evaluations," will be included during an upcoming cycle of Operator Requalification training.

These actions will be completed by April 30, 1993.

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SUBJECT: Responds to NRC 921123 ltr re violations noted in insp repts 50-220/92-24 & 50-410/92-28. Corrective actions: training module being developed to review w/technicians, operations of calibration test device used during Hi/Lo RWL Trip Test.

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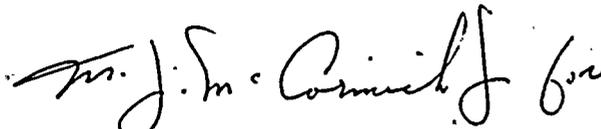
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