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SUBJECT: Responds to NRC ltr re violations noted in insp rept
50-410/97-11. Corrective actions: immediately upon discovery
APRM channels E & F were declared inoperable.

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NIAGARA MOHAWK
 GENERATION
 BUSINESS GROUP

NINE MILE POINT NUCLEAR STATION/LAKE ROAD, P.O. BOX 63, LYCOMING, NEW YORK 13093

January 27, 1998
 NMP2L 1750

U. S. Nuclear Regulatory Commission
 Attn: Document Control Desk
 Washington, DC 20555

RE: Nine Mile Point Unit 2
 Docket No. 50-410
NPF-69

Subject: *Reply to Notice of Violation as Contained in NRC Inspection Report
 50-220/97-11 and 50-410/97-11*

Gentlemen:

Niagara Mohawk Power Corporation's reply to the subject Notice of Violation is enclosed in the Attachment to this letter. Much of the information provided with respect to violations 97-11-03 and 97-11-04 is contained in Nine Mile Point Unit 2 Licensee Event Reports (LER) 97-11 and 97-09 respectively. LER 97-11 was submitted on October 10, 1997 and LER 97-09 was submitted on September 26, 1997. We do not dispute these violations.

Very truly yours,

John H. Mueller
 Chief Nuclear Officer

JHM/GJG/cmk
 Attachment

500040



xc: Mr. H. J. Miller, Regional Administrator, Region I
 Mr. A. W. Dromerick, Acting Director, Project Directorate I-1, NRR
 Mr. B. S. Norris, Senior Resident Inspector
 Mr. D. S. Hood, Senior Project Manager, NRR
 Records Management

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ATTACHMENT

NIAGARA MOHAWK POWER CORPORATION
NINE MILE POINT UNIT 2
DOCKET NO. 50-410
NPF-69

"REPLY TO NOTICE OF VIOLATION," AS CONTAINED IN
INSPECTION REPORT 50-220/97-11 AND 50-410/97-11

A. VIOLATION 50-410/97-11-03

NMP2 Technical Specification Surveillance Requirement 4.3.1.2, requires reactor protection system instrumentation logic system functional tests be performed at least once per 18 months.

Contrary to the above, as of September 12, 1997, the reactor protection system logic system functional tests of APRM channels "E" and "F" had not been performed since initial operation.

I. THE REASON FOR THE VIOLATION

On September 12, 1997, Niagara Mohawk Power Corporation (NMPC) determined that surveillance testing performed to meet the Nine Mile Point Unit 2 (NMP2) Technical Specification (TS) Surveillance Requirements (SR) 4.3.1.1-2a (Neutron Flux - Upscale, Setdown), 4.3.1.1-2b (Flow Biased Simulated Thermal Power - Upscale) and 4.3.1.1-2c (Fixed Neutron Flux - Upscale) for Channel Functional Testing (CFT) and channel calibration had not been met for Average Power Range Monitors (APRMs) E and F. In addition, the NMP2 TS SRs 4.3.1.2, Logic System Functional Test (LSFT) and 4.3.1.3, Response Time Testing (RTT) requirement had not been met for the same APRMs. This deficiency was discovered by personnel performing a design review for the Power Range Neutron Monitoring System which will replace the APRM system.

NMP2 has six APRM channels: A, B, C, D, E, and F. Channels A and C input to Trip System "A" Logic Channels A1 and A2, respectively. Channel E inputs to both Trip System "A" Logic Channels A1 and A2. Channels B and D input to Trip System "B" Logic Channels B1 and B2, respectively. Channel F inputs to both Trip System "B" Logic Channels B1 and B2. This design allows one APRM to be bypassed while maintaining two trip channels within the Trip System.

Prior to September 12, 1997, the procedures for CFT, LSFT, RTT, and channel calibrations did not contain steps to individually test channels E and F within the individual Trip System. Therefore, an inoperable condition could have existed in one of the channels with another channel bypassed, which would have made the Trip System inoperable.



The error occurred initially in 1986, prior to initial operation, in that the procedure developer failed to translate the design requirements to test APRM E and F into the surveillance procedure. A contributing factor is poor work practices; during the revision of relevant procedures, personnel did not perform an adequate technical review. The uniqueness of the APRM E and F circuits inputting to both their respective trip channels was not recognized by either the developer of the original procedures or by the personnel subsequently revising the procedures.

II. CORRECTIVE ACTIONS TAKEN AND RESULTS ACHIEVED

The following corrective actions have been taken:

1. Immediately upon discovery, APRM channels E and F were declared inoperable.
2. Procedures (N2-ISP-NMS-W@001, N2-ISP-NMS-Q157, N2-ISP-NMS-Q167 and N2-ISP-NMS-R203) were revised to individually test both logic channels of APRM channels E and F, and the tests were performed to verify operability.
3. NMPC reviewed other RPS channel logic to determine other systems with dual channel inputs. The Turbine Stop Valve Closure and Main Steam Isolation Valve Closure logic were identified. Procedures for those systems were reviewed and it was determined that those procedures adequately tested those dual channels.

III. ACTIONS TAKEN TO PREVENT RECURRENCE

The following actions have been taken to prevent recurrence:

1. NMPC is in the process of designing a modification to remove the existing APRMs and install a Power Range Neutron Monitoring System. This deficiency was identified by the team working on that modification. The new system will receive an in-depth review to assure that CFT, LSFT, RTT, and channel calibration procedures meet the TS SRs.
2. NMPC is performing a review of procedures per NRC Generic Letter (GL) 96-01, Testing of Safety Related Logic Circuits. That review includes comparing electrical schematic drawings and logic diagrams to plant surveillance procedures to assure TS requirements are met. Review of APRM circuitry had not been completed at the time of the discovery of this deficiency.



A number of enhancements have been made to our procedure development program since 1994. These actions included specific program upgrades and included the following procedurally controlled programs which have been enhanced in the areas of technical review and 10CFR50.59 Applicability Review:

- NIP-SEV-01, Applicability Reviews and Safety Evaluations
- NIP-PRO-03, Preparation and Review of Technical Procedures
- PWM-PRO-0105, Technical Procedure Verification and Validation

These procedural enhancements, as well as management emphasis regarding the level of detail of these reviews, provide added assurance that procedures are technically accurate and adequate.

Another activity that is pertinent to this violation is the "Back to Basics" training that was held with various site departments in 1995 and 1996. Although this training was not directly related to this violation, the aspects of compliance with the design and licensing basis, the need for heightened awareness and attention to detail during work activities, and the importance of a questioning attitude were addressed and will also provide added assurance of procedure accuracy.

IV. DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Full compliance was achieved on September 18, 1997 when APRM "E" and "F" were successfully tested and declared operable.



B. VIOLATION 50-410/97-11-04

NMP2 Technical Specification Surveillance Requirement 4.7.3.e.2, requires a verification every eighteen months that the control room outdoor air special filter train system is capable of maintaining a positive pressure on the control room envelope.

NMP2 UFSAR Section 6.4.2.1, states that the control room envelope consists of all areas located within the main control room and the relay room of the control building.

Contrary to the above, as of August 27, 1997, the positive pressure verification of the control room envelope failed to include the relay room since initial operation.

I. THE REASON FOR THE VIOLATION

On August 27, 1997, Niagara Mohawk determined that the surveillance test which had been implemented to meet Surveillance Requirement (SR) 4.7.3.e.2 of the Nine Mile Point Unit-2 (NMP2) Technical Specifications (TS) had not appropriately included testing of all areas considered to be within the control room envelope. Operations surveillance procedure N2-OSP-HVC-R001 (Control Room Outside Air Special Filter Train Functional Test) only verified that a positive 0.125 inch water gauge (WG) pressure was maintained in the control room. The control building relay room differential pressure had not been verified. In addition, since the Air Conditioning Units (ACUs) provide some of the driving force to pressurize the Control Building, the surveillance did not demonstrate operability for all possible ACU alignments. This event was discovered by NMPC personnel preparing the Improved Standard Technical Specifications (ITS) submittal.

Immediately upon discovery of the missed surveillance, operations entered TS LCO 3.0.3. TS SR 4.0.3 was applicable, which allows actions to be delayed 24 hours for completion of the surveillance. Procedure N2-OSP-HVC-R001 was revised to include verification of the relay room differential pressure. The surveillance was performed on both divisions of control room outdoor air special filter trains. Division II successfully met the SR, but Division I failed to meet the SR. Since one control room filter train was operable, TS 3.0.3 and SR 4.0.3 were exited and TS 3.7.3 Action Statement "a" was entered, which allows seven days for repair. A one time only procedure change was then made to adjust balancing damper 2HVC*DMP8A. Surveillance procedure N2-OSP-HVC-R001 was reperformed on the Division I control room filter train which then successfully met the SR. The Division II control room filter train was then retested to verify that the SR was still met. On September 1, 1997, both trains were declared operable.

The cause of the failure to include the control building relay room in procedure N2-OSP-HVC-R001 has been determined to be inadequate technical review. When the procedure was developed to meet the TS SR, the preparer and reviewer failed to identify that the control room should have included the relay room. A contributing factor is that NMP2 TS SR 4.7.3.e.2 requires that the "control room is maintained at a positive pressure of 0.125 inch



WG relative to the outside atmosphere during subsystem operation at an outside air intake flow rate less than or equal to 1500 cfm." Previous reviewers did not interpret this to mean "control room envelope."

The failure to test all possible ACU alignments has also been determined to be inadequate technical review. When N2-OSP-HVC-R001 was developed and revised, personnel did not understand that the ACUs provide some of the pressurization to meet SR 4.7.3.e.2. Previously, personnel believed that pressurization was provided by the special filter train fans alone, and that the operation of the ACU was therefore not critical to demonstrating compliance with this SR.

II. CORRECTIVE ACTIONS TAKEN AND RESULTS ACHIEVED

1. TS 3.0.3 was entered, but actions were delayed as allowed by SR 4.0.3. Procedure N2-OSP-HVC-R001 was revised to include verification of the relay room differential pressure and assure that required ACU lineups are verified. Adjustments were made to balancing damper 2HVC*DMP8A and both divisions of the control room special filter trains were successfully tested and declared operable.
2. This event will be reviewed in operator requalification training by February 28, 1998.

III. ACTIONS TAKEN TO PREVENT RECURRENCE

A number of enhancements have been made to our procedure development program since 1994. These actions included specific program upgrades and included the following procedurally controlled programs which have been enhanced in the areas of technical review and 10CFR50.59 Applicability Review:

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IV. DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Full compliance was achieved on September 1, 1997, when both trains were successfully tested and declared operable.

