

# CATEGORY 1

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 FACIL:50-410 Nine Mile Point Nuclear Station, Unit 2, Niagara Moha      05000410  
 AUTH.NAME.      AUTHOR AFFILIATION  
 PISANO,L.      Niagara Mohawk Power Corp.  
 PALEOLOGOS,N.      Niagara Mohawk Power Corp.  
 RECIP.NAME      RECIPIENT AFFILIATION

SUBJECT: LER 98-027-00:on 981124,Unit 2 entered operational condition without performing channel functional tests on SRMs & IRM as required by TS 4.0.4.Caused by inadequate corrective actions from previous event.Procedure revised.With 981223 ltr.

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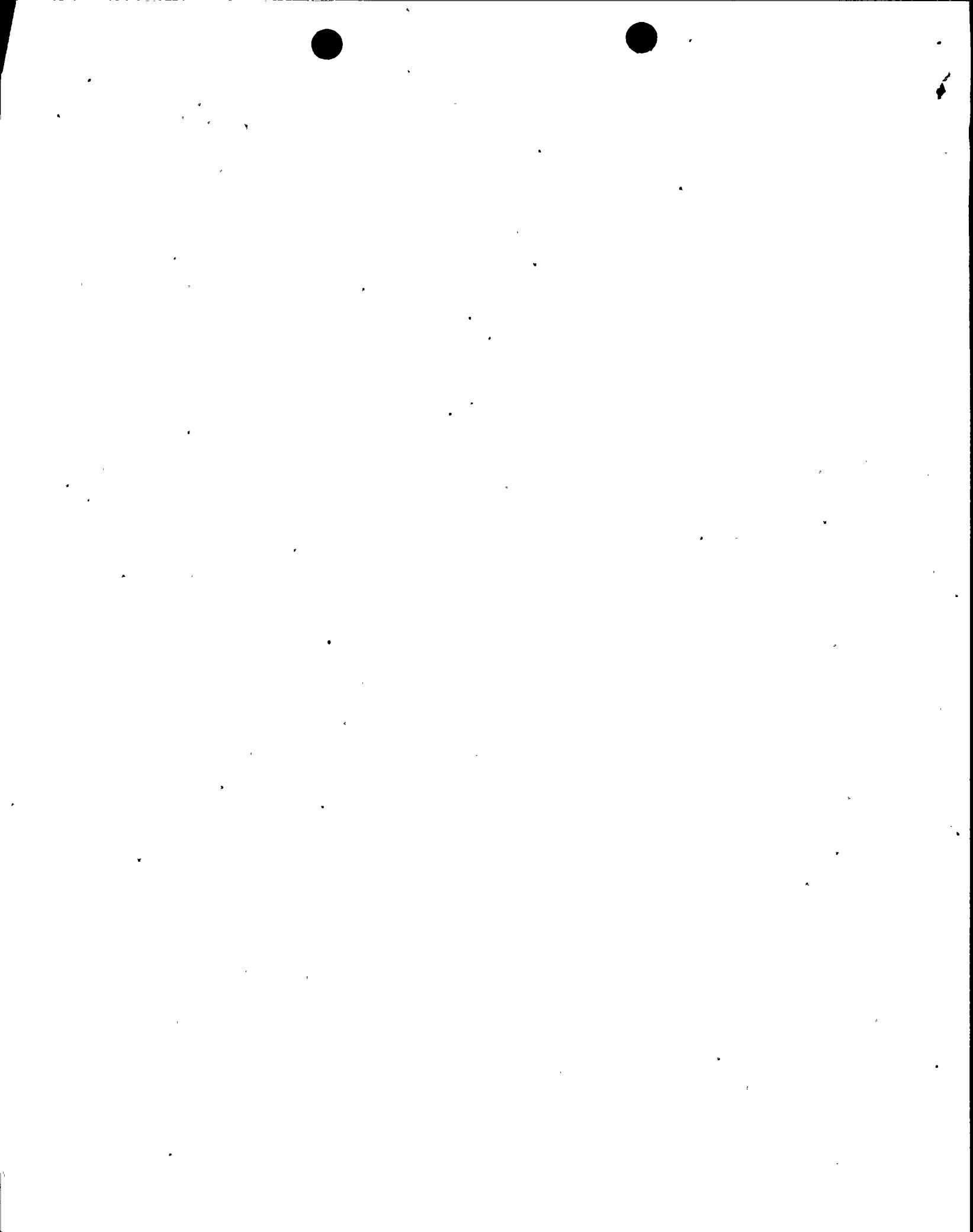
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# Niagara Mohawk

December 23, 1998  
NMP2L 1842

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

RE: Docket No. 50-410  
LER 98-27

Gentlemen:

In accordance with 10CFR50.73(a)(2)(i), we are submitting LER 98-27, "Missed Technical Specification Required Surveillances of SRMs and IRMs Prior to Mode Change."

Very truly yours,



Nick Paleologos  
Plant Manager - NMP2

NCP/GJG/kap  
Attachment

xc: Mr. H. J. Miller, Regional Administrator, Region I  
Mr. G. K. Hunegs, Senior Resident Inspector  
Records Management

9901050360 981223  
PDR ADCK 05000410  
S PDR



LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-330), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503

FACILITY NAME (1) Nine Mile Point Unit 2	DOCKET NUMBER (2) 05000410	PAGE (3) 01 OF 04
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TITLE (4)  
Missed Technical Specification Required Surveillances of SRMs and IRMs Prior to Mode Change

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE(7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
11	24	98	98	027	00	12	23	98	N/A	
									N/A	

OPERATING MODE (9) 3 THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)

POWER LEVEL (10) 0	<input type="checkbox"/> 20.2201(b) <input type="checkbox"/> 20.2203(a)(1) <input type="checkbox"/> 20.2203(a)(2)(i) <input type="checkbox"/> 20.2203(a)(2)(ii) <input type="checkbox"/> 20.2203(a)(2)(iii) <input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 20.2203(a)(2)(v) <input type="checkbox"/> 20.2203(a)(3)(i) <input type="checkbox"/> 20.2203(a)(3)(ii) <input type="checkbox"/> 20.2203(a)(4) <input type="checkbox"/> 50.36(c)(1) <input type="checkbox"/> 50.36(c)(2)	<input checked="" type="checkbox"/> 50.73(a)(2)(i) <input type="checkbox"/> 50.73(a)(2)(ii) <input type="checkbox"/> 50.73(a)(2)(iii) <input type="checkbox"/> 50.73(a)(2)(iv) <input type="checkbox"/> 50.73(a)(2)(v) <input type="checkbox"/> 50.73(a)(2)(vii)	<input type="checkbox"/> 50.73(a)(2)(viii) <input type="checkbox"/> 50.73(a)(2)(x) <input type="checkbox"/> 73.71 <input type="checkbox"/> OTHER <small>(Specify in Abstract below and in Text, NRC Form 366A)</small>
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LICENSEE CONTACT FOR THIS LER (12)

NAME L. Pisano, Maintenance Manager - NMP2	TELEPHONE NUMBER (315) 349-2073
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

SUPPLEMENTAL REPORT EXPECTED (14)	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single space typewritten lines) (16)

During a plant shutdown on November 24, 1998, Nine Mile Point Unit 2 entered Operational Condition (OC) 3 (Hot Shutdown) without performing Channel Functional Tests on the Source Range Monitors (SRMs) and Intermediate Range Monitor (IRMs) as required by Technical Specification 4.0.4.

Niagara Mohawk Power Corporation (NMPC) determined the cause of the event to be inadequate corrective actions from a previous event. NMPC did not properly revise Procedure N2-OP-101C (Plant Shutdown) to prevent this event. Additionally, the training provided did not provide specific details regarding the SRM and IRM operability and surveillance requirements associated with the change from OC1 to OC3 and OC4.

Corrective actions include revising Procedure N2-OP-101C and training personnel.



LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20535, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Nine Mile Point Unit 2	05000410	98	27	00	02 OF 04

TEXT (If more space is required, use additional NRC Form 366A's) (17)

## I. DESCRIPTION OF EVENT

On November 24, 1998, at 1001 hours, Nine Mile Point Unit 2 (NMP2) entered Operational Condition (OC) 3 (Hot Shutdown) without performing Channel Functional Tests (CFTs) on the Source Range Monitors (SRMs) and Intermediate Range Monitors (IRMs) as required by Technical Specification (TS) 4.0.4. Just prior to the mode change, NMP2 was at approximately 13 percent power. Within one hour, the operators declared the SRMs and IRMs inoperable and locked the Reactor Mode Switch in the Shutdown position as required by TS Table 3.3.1-1.1.a, Action 2.

On November 13, 1998, operators placed NMP2 in single loop operation in accordance with TS 3.4.1.1 Action a due to a failure associated with the B recirculation flow control valve (FCV). On November 23, 1998, following completion of troubleshooting, operators commenced a power reduction to approximately 45% utilizing Procedure N2-OP-101D, Power Changes, in preparation to return to two-loop operation. Operators then used Procedure N2-OP-101C, Plant Shutdown, to continue the power reduction to approximately 30% and shifted the running reactor recirculation pump to slow speed. When operators restarted the B reactor recirculation pump, the B FCV exhibited irregular position indication. Station management directed operators to shut down the plant to further troubleshoot the problem with the FCV. Operators placed NMP2 in OC3 at 1001 hours in accordance with Procedure N2-OP-101C. Within one hour, the SRMs and IRMs were declared inoperable and operators locked the Reactor Mode Switch in Shutdown.

For a planned plant shutdown, operators utilize Procedure N2-OP-101D to reduce power to approximately 45 percent. At approximately 45% power, operators enter Procedure N2-OP-101C to reduced power further to perform a plant scram by placing the Reactor Mode Switch to Shutdown. When operators reduced power using Procedure N2-OP-101D, they did not plan to shut down the plant. Therefore, the operators were not required to perform the SRM and IRM surveillances by Procedure N2-OP-101D. Operators expected to return to full power following recovery from single-loop operation, but continued FCV problems prompted plant management to direct operators to shut down the plant to repair the FCV. Since Procedure N2-OP-101C did not require the verification of the completion of the SRM and IRM surveillances, an appropriate procedural barrier was not in place to prevent operators from changing modes without meeting the SRM and IRM surveillance requirements.

At one point following the decision to shutdown, an Instrument and Controls (I&C) Supervisor asked if the surveillances should be performed prior to shutdown. The Station Shift Supervisor (SSS) decided that CFTs were not required since the SRMs and IRMs would be declared inoperable after the plant was shut down. It was believed by the on shift SSS, that the reason for locking the Reactor Mode Switch in Shutdown (Procedure N2-OP-101C requirement) was because the SRM and IRM surveillances for mode 3/4 could not be completed until after the Reactor Mode Switch was actually placed in Shutdown. Other Senior Reactor Operators were interviewed and shared this misunderstanding.





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TEXT CONTINUATION

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Nine Mile Point Unit 2	05000410	98	27	00	03 OF 04

TEXT (If more space is required, use additional NRC Form 366A's) (17)

### I. DESCRIPTION OF EVENT (Cont'd)

NMPC missed an opportunity to prevent this event in August 1996, when a Training Instructor initiated a Procedural Change Evaluation (PCE) to revise Procedure N2-OP-101C. He noted that, during Simulator shutdown training, operators demonstrate a lack of understanding regarding the SRM and IRM surveillance requirements associated with the descending mode changes from OC1 to OC3. The instructor proposed adding a step to Procedure N2-OP-101C to verify the completion of all OC3 required surveillances prior to plant shutdown. However, NMPC did not incorporate this PCE when the procedure was revised in December 1997, due to a computer database review error by the person who prepared the revision.

### II. CAUSE OF EVENT

NMPC determined the cause of this event to be inadequate corrective actions from the event reported in LER 96-02. NMPC did not change Procedure N2-OP-101C to ensure the SRM and IRM surveillances were performed prior to leaving OC1 (Power Operation). Only Procedure N2-OP-101D was revised based upon the logic that it would ensure timely initiation of the surveillances prior to entering Procedure N2-OP-101C for making the mode change to OC3. The corrective action to train personnel on TS 3.0 and 4.0 requirements on changing OCs did not provide specific details regarding the SRM and IRM operability and surveillance requirements associated with the descending mode changes from OC1 to OC3.

### III. ANALYSIS OF EVENT

This event constitutes a non-conformance with NMP2 Technical Specification 4.0.4 and is reportable in accordance with 10CFR50.73(a)(2)(i)(B), "any operation or condition prohibited by the plant's Technical Specifications." The plant was placed into OC3 without the completion of the SRM and IRM surveillances.

The purpose of the Neutron Monitoring System is to detect an uncontrolled increase in reactor power, and to alarm and/or fully insert all control rods. Since operators fully inserted all control rods and locked the Reactor Mode Switch in the shutdown position, preventing control rod withdrawal, they completed all the safety functions provided by the IRMs as they entered OC3. The Improved Technical Specifications will eliminate the requirement for IRMs to be operable in OC3 and OC4 (Cold Shutdown) as specified in NUREG 1434, "Standard Technical Specifications for General Electric Plants, BWR/6." SRMs provide monitoring functions, but normally have no safety functions in OC3 and OC4. The Improved Technical Specification will also permit operators to delay the SRM surveillances for up to 12 hours following entry into OC3. Therefore, this event had no impact on the health and safety of the public.



LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATIONESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION  
REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE  
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**IV. CORRECTIVE ACTIONS**

- To ensure that NMP2 Branch Managers, SORC members, and alternates internalize the lessons learned regarding the ineffective corrective actions that led to this event, these issues will be discussed using the case study method by January 30, 1999.
- NMPC has revised Procedure N2-OP-101C to verify the SRM and IRM surveillance procedures are performed prior to completing a planned plant shutdown.
- NMPC will train I&C Management, Work Planning and Scheduling Staff involved in the I&C Surveillances, and Licensed Operators on the intent of Tech Spec 4.0.4 as it relates to the operability of the SRMs and IRMs. A validation of the effectiveness of the Training will be completed by March 31, 1999.
- NMPC will re-emphasize the use of the Controlled Document System (CDS), to identify all pending PCEs, with operators who prepare and review procedure revisions by February 15, 1999.
- Operations training personnel and licensed operators will be counseled on the failure to take effective corrective actions following the identification of the training deficiencies discussed in this LER by February 15, 1999.

**V. ADDITIONAL INFORMATION**

A. Failed components: none

B. Previous similar events:

LER 96-02 "Technical Specification Violation Caused by Inadequate Surveillance Scheduling" reported previous TS 4.0.4 violations. The corrective actions from that event were not effective in preventing this event.

C. Identification of components referred to in this LER:

COMPONENT	IEEE 803 FUNCTION	IEEE 805 SYSTEM ID
Source Range Monitor (SRM)	MON	IG
Intermediate Range Monitor (IRM)	MON	IG

