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ACCESSION NBR: 8904210068 DOC. DATE: 89/04/05 NOTARIZED: NO DOCKET #  
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SUBJECT: LER 89-004-00: on 890303, failure to perform surveillance  
 testing according to Tech Specs due to procedure deficiency.  
 W/8 ltr.

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## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Nine Mile Point Unit 1										DOCKET NUMBER (2) 0 5 0 0 0 2 2 0				PAGE (3) 1 OF 0 5		
TITLE (4) Failure to Perform Surveillance Testing According to Technical Specifications Due to Procedural Deficiency.																
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)			
0 3	0 3	8 9	8 9	0 0 4	0 0	0 4		8 9					0 5 0 0 0			
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)														
N		20.402(b)				20.405(c)				50.73(a)(2)(iv)				73.71(b)		
POWER LEVEL (10)		0 0 0				20.405(a)(1)(i)				50.73(a)(2)(v)				73.71(c)		
		20.405(a)(1)(ii)				50.38(c)(1)				50.73(a)(2)(vi)				OTHER (Specify in Abstract below and in Text, NRC Form 366A)		
		20.405(a)(1)(iii)				50.38(c)(2)				50.73(a)(2)(vii)						
		20.405(a)(1)(iv)				X 50.73(a)(2)(i)				50.73(a)(2)(viii)(A)						
		20.405(a)(1)(v)				50.73(a)(2)(ii)				50.73(a)(2)(viii)(B)						
		20.405(a)(1)(vi)				50.73(a)(2)(iii)				50.73(a)(2)(ix)						
LICENSEE CONTACT FOR THIS LER (12)																
NAME Andrew R. Andersen, Supervisor, Fire Protection										TELEPHONE NUMBER						
										AREA CODE 3 1 5		3 4 9 - 2 4 7 5				
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																
CAUSE	SYSTEM	COMPONENT	MANUFAC- TURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFAC- TURER	REPORTABLE TO NPRDS						
SUPPLEMENTAL REPORT EXPECTED (14)												EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)												X NO				

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

ABSTRACT

On March 3, 1989, it was determined that the Technical Specification requirement for surveillance testing of the Fire Detection System had not been met in December 1988. The Nine Mile Point Unit 1 (NMP-1) Nuclear Station was in a cold shutdown condition with the core off-loaded on this date.

The root cause for the Technical Specification non-compliance was a procedural deficiency. The procedural deficiency was a result of personnel error in that the procedure was not accurately compared to Technical Specifications to verify that the proper number of fire detectors was being tested.

Corrective Action consists of revising the deficient procedure to ensure consistency with Technical Specifications, and incorporate the use of a procedure writers guide to ensure verification of procedural requirements for consistency with Technical Specifications for future procedure revisions. The remainder of the Fire Department surveillance procedures will be reviewed to ensure Technical Specification compatibility. The detector which was missed in December 1988, was tested successfully on March 8, 1989.

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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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Nine Mile Point Unit 1	0 5 0 0 0 2 2 0	8 9	— 0 0 4	— 0 0	0 2	OF	0	5

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

DESCRIPTION OF THE EVENT

On March 3, 1989, the Nine Mile Point Unit One (NMP-1) Fire Department determined that they had not met the Technical Specification surveillance requirement for testing the Fire Detection System. The NMP-1 Nuclear Station was in the cold shutdown condition with the core off-loaded on this date.

The Station Technical Specification 3.6.6 identifies detection zones for fire detectors protecting safety related equipment and provides the number of detectors in each respective zone. Section 4.6.6 of the Technical Specification requires that each detector be demonstrated operable by performance of an instrument channel test at least once every six months. Contrary to this requirement, the surveillance performed in December of 1988 did not include a test of each detector located in detection zone DA-4076E located on the East side of the Reactor Building at Elevation 237 feet.

An annual fire protection audit had been conducted from February 6 to February 24, 1989 by the Safety Review and Audit Board in conjunction with Niagara Mohawk Power Corporation (NMPC) Quality Assurance Department. An Audit observation which indicated a potential Technical Specification non-compliance was initially provided to Fire Department Supervision on February 10, 1989. The Fire Department staff concluded that the Technical Specification requirement was not met during preparation of the response to the audit observation on March 3, 1989.

Fire Department Surveillance Test Procedure No. N1-FST-FPM-SA001 Revision 0, used for the Technical Specification Operability Test of fire detection zones is not consistent with the Technical Specification in terms of listing the number of detectors in each zone. The Technical Specification indicates that Detection Zone DA-4076E has 16 (sixteen) detectors, the procedure Data Sheets for that zone however, only list 15 (fifteen) detectors. Consequently, one detector in zone DA-4076E was not tested in December 1988.

A review of Procedure N1-FST-FPM-SA001 Revision 0, for comparison to the Technical Specification revealed that 3 (three) other zones had fewer detectors listed than the Technical Specification indicated. Zone Dx 3031A, located in the Auxiliary Control Room, had 15 (fifteen) detectors listed in the procedure where as the Technical Specification indicated 16 (sixteen). Zone D-5023, located in the Screen House at Elevation 243 and 256 feet, had 16 (sixteen) detectors listed where as the Technical Specification indicated 17 (seventeen). Zone D-4207, located on the South side of the Reactor Building at Elevation 298 feet, had 6 (six) detectors listed where as the Technical Specification had indicated 7 (seven). Consequently, none of the 4 (four) detection zones were completely tested in December 1987. During the test conducted in June 1988, 2 (two) of the 4 (four) zones were properly tested according to Technical Specifications despite the procedure. In December 1988, 3 (three) of the 4 (four) detection zones were properly tested according to Technical Specifications despite the procedure. However, the procedure was not corrected at that time.



## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

CAUSE OF THE EVENT

The Root Cause for the non-compliance to the Technical Specification for all zones was a procedural deficiency. The procedural deficiency related to detection zone Dx-3031A was traced back to the original issue of procedure N1-FST-FPM-SA001. Procedure N1-FST-SA1 Revision 4, which was superseded by N1-FST-FPM-SA001 in September 1987, listed the correct number of detectors according to Technical Specification. The cause for this deficiency was personnel error on the part of the procedure author for overlooking the inconsistency with the Technical Specification.

The procedural deficiency related to detection zones DA-4076E and D-4207 was traced back to Revision 3 of procedure N1-FST-SA1 issued in April 1984. Revision 2 of this procedure listed the correct number of detectors for these zones. The cause for this deficiency was also personnel error, however, the procedural changes resulting in the Technical Specification inconsistency were intentional as noted by the revision annotation in the margin of the procedure. The basis for this change could not be determined.

The procedural deficiency related to Detection Zone D-5023 was traced back to the original revision of procedure N1-FST-SA1, dated August 1982. This deficiency existed prior to the time the detection zone was included in the Technical Specification. Amendment 53 to the Technical Specification became effective in December of 1983 and added numerous detection zones, including zone D-5023. Procedure N1-FST-SA1 and Procedure N1-FST-FPM-SA001 have been deficient since that time for zone D-5023. The cause of this deficiency was personnel error due to a lack of attention to detail.

Investigation into the deficiency also revealed that it had been previously identified. NMPC contracted Pickard, Lowe and Garrick, Incorporated to perform, "Technical Specifications and Surveillance Procedures Review and Evaluation" for NMP-1. The report issued June 15, 1984, identified the deficiency in procedure N1-FST-SA1 associated with detection zone D-5023. The root cause for not having corrected the deficiency at that time can be attributed to management ineffectiveness.

ANALYSIS OF THE EVENT

This event is considered reportable in accordance with 10CFR50.73(a)(2)(i)(B), "Any operation or condition prohibited by the plant's Technical Specifications".





## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104  
EXPIRES: 8/31/88

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TEXT (If more space is required, use additional NRC Form 365A's) (17)

Although not all of the fire detectors in each of the 4 (four) detection zones was tested as required, the capability of the detection system to perform as designed was never significantly compromised. NMP-1 employs a Pyrotronics System 3 based detection control system. The fire detectors within the zones in question are supervised by a Class "A" 4 (four) wire loop. The detection zones are supervised by their respective Local Fire Control Panel (LFCP) for both loop integrity and detector placement. Any trouble indications for a detector loop would annunciate at the LFCP and at the Main Fire Control Panel located in the Control Room. This ensures detection capability is maintained. Any corrective action required would be initiated at that time. The detectors in question were satisfactorily tested subsequent to the intervals in which they were omitted from testing. This coupled with the supervisory capability of the detection loops indicates that the capability of the detection system was maintained in between surveillance tests.

Based upon this analysis, the health and safety of the public were never compromised as a result of this event.

CORRECTIVE ACTION

Upon determining the Technical Specification non-compliance an Occurrence Report was initiated to document the condition. A Temporary Change Notice was issued against N1-FST-FPM-SA001 Revision 0, to correct the procedural deficiency on March 3, 1989. The missed detector within Zone DA-4076E was manually tested on March 8, 1989 and found to be operable. The detectors in Zones Dx 3031A, D-5023 and D-4207 were demonstrated operable during the surveillance test performed in December 1988.

Additional corrective action includes a revision to Procedure N1-FST-FPM-SA001 which will ensure consistency with the Technical Specification. The revision will be completed prior to the June 1989 scheduled surveillance test. The remainder of the Fire Department surveillance procedures will be reviewed to ensure Technical Specification compatibility. Future procedure revisions will utilize a procedure writers guide which will ensure that procedures are appropriately compared to Technical Specifications for consistency.

Procedure S-NRCP-8, "Procedure for Technical Review", expected to be issued in April 1989 will govern the review of proposed Technical Specification amendments. This procedure will ensure procedures and documents that may be affected by the amendment are identified and changed accordingly.

Station General Order 89-03 has been issued for guidance and policy in the area of procedure adequacy and compliance. This document requires procedures to be technically adequate to enable correct performance of required tasks. Procedures not meeting this criteria are to be corrected prior to use.



## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

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

The Pickard, Lowe and Garrick, Incorporation report is being reviewed to determine if there are any remaining actions required with regard to Technical Specification related surveillance procedures; all required actions will be completed.

Corrective actions associated with management and organizational effectiveness have been addressed within the NMPC, NMP-1 Restart Action Plan. These actions are scheduled for completion prior to NMP-1 restart. They include developing a controlled and consolidated matrix showing implementing procedures and assigned responsibilities for all Technical Specification test requirements. The long term corrective action associated with management ineffectiveness is addressed by the NMP Nuclear Improvement Program.

ADDITIONAL INFORMATION

An event similar to that described in this LER occurred in March 1987. LER 87-06 described a Technical Specification violation due to personnel error by Fire Department supervision in that they failed to identify a Technical Specification attribute in a surveillance procedure. This resulted in verifying the attribute at a frequency less than required by the Technical Specification. The corrective action taken at that time was not adequate to preclude this event because it was intended to identify Technical Specification required attributes in the beginning of a procedure so they would not be inadvertently changed, but not to verify the accuracy of the attributes.

The following table lists the aforementioned system and associated IEEE-805 System and IEEE-803A Component Codes:

<u>System</u>	<u>IEEE-805 System</u>	<u>IEEE-803A Component</u>
Fire Detection	IC	DET



April 5, 1989

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

RE: Docket No. 50-220  
LER 89-04

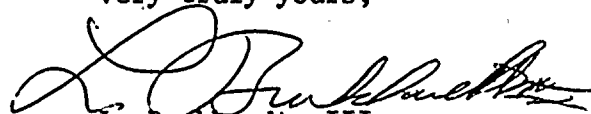
Gentlemen;

In accordance with 10CFR50.73, we hereby submit the following Licensee Event Report:

LER 89-04 Which is being submitted in accordance with 10CFR50.73  
(a)(2)(i)(B), "Any operation or condition prohibited by  
the plant's Technical Specifications;"

This report was completed in the format designated in NUREG-1022,  
Supplement 2, dated September 1985.

Very truly yours,



L. Burkhardt, III  
Executive Vice President  
Nuclear Operations

JLW/MB/mjv

Attachment

cc: William T. Russell  
Regional Administrator

*Cent No Pn37405090*  
*JE22*  
*11*

