



November 24, 1999
NMP2L 1912

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

RE: Docket No. 50-410
LER 99-20

Gentlemen:

In accordance with 10CFR50.73(a)(2)(i)(B), we are submitting LER 99-20, "Instrument Air Valves Not Tested As Required By Technical Specification 4.0.5."

Very truly yours,

A handwritten signature in black ink, appearing to read "M. Peckham".

Michael F. Peckham
Plant Manager - NMP2

MFP/CES/kap
Attachment

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

IE22

LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 30.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), 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 05

TITLE (4)

Instrument Air Valves Not Tested As Required By Technical Specification 4.0.5

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	02	99	99	020	00				N/A	
									N/A	

OPERATING MODE (9)

1

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

POWER LEVEL (10) 100%	<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(2)(v)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)
	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(x)
	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 73.71
	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> OTHER
	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	(Specify in Abstract below and in Text, NRC Form 366A)
	<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)	

LICENSEE CONTACT FOR THIS LER (12)

NAME

William R. Yaeger, Manager, Nuclear Engineering Services

TELEPHONE NUMBER

(315) 349-7834

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)

 YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15)

MONTH

DAY

YEAR

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

On November 2, 1999, while at 100 percent power, Niagara Mohawk Power Corporation identified that two instrument air system valves (2IAS*SOV164 and 2IAS*SOV165) were not being stroke-time tested in the open direction as required by American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code Section XI. Therefore, Technical Specification Surveillance Requirement 4.0.5 was not met. The open stroke-time testing requirement was inappropriately deleted from the ASME Section XI Inservice Testing Program. This condition was discovered as a result of the corrective actions described in Licensee Event Report 99-11 (Valves Not Correctly Tested as Required by Technical Specification 4.0.5).

The cause was misapplication of design basis information during the development of the Second Ten-Year Interval Inservice Testing Program Plan. Contributing to the cause was an incorrect safety classification determination.

Valves 2IAS*SOV164 and 2IAS*SOV165 were added to the Second Ten-Year Interval Inservice Testing Program and satisfactorily stroke-time tested in open direction. A deviation/event report was issued to address the inconsistency between the safety class determination and the Updated Safety Analysis Report. Additionally, the population of valves that are only tested in one direction will be reviewed to ensure adequate testing is being performed.

**LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION**

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 30.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), 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	LER NUMBER (6)			PAGE (3) 02 OF 05
		YEAR 99	SEQUENTIAL NUMBER 20	REVISION NUMBER 00	

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

I. DESCRIPTION OF EVENT

On November 2, 1999, while at 100 percent power, Niagara Mohawk Power Corporation identified that two instrument air system valves (2IAS*SOV164 and 2IAS*SOV165) were not being stroke-time tested in the open direction as required by the ASME Boiler and Pressure Vessel Code Section XI. The valves are in the system supply lines to the automatic depressurization system accumulators, and receive a signal to automatically close on a loss of coolant accident signal. The Updated Safety Analysis Report states that the automatic depressurization system will be able to perform its safety-related function for 100 days following an accident. Therefore, the valves must be able to re-open to recharge the accumulators. The valves were in the ASME Section XI Inservice Testing Program, but were only stroke-time tested in the closed position because reopening of the valve was not considered an active safety function. Therefore, Technical Specification Surveillance Requirement 4.0.5 was not met.

Valves 2IAS*SOV164 and 2IAS*SOV165 are the outboard containment isolation valves on the two system supply lines to the automatic depressurization system accumulators for the seven main steam line safety relief valves. Because the system supplies pressurizing gas to components inside containment, this portion of the instrument air system utilizes nitrogen.

A review of the First Ten-Year ASME Section XI Inservice Testing Program documentation revealed that the valves were correctly stroke-time tested in both the open and closed direction. During the development of the Second Ten-Year ASME Section XI Inservice Testing Program, Safety Class Determination 90-066 provided the bases for eliminating stroke-time testing the valves in the open direction. Safety Class Determination 90-066 incorrectly concluded that the only safety-related function of the valves was to close for containment isolation. Further research revealed that the valves have active safety functions to both open and close.

This condition was identified as a result of corrective actions described in Licensee Event Report 99-11 (Valves Not Correctly Tested as Required By Technical Specification 4.0.5). These two valves were included in the population of approximately 300 valves in the ASME Section XI Inservice Testing Program that were classified as passive or had testing requirements reduced and therefore, were identified in the population of valves were being evaluated for proper testing requirements.

II. CAUSE OF EVENT

The cause of the incomplete testing of the two valves was a misapplication of the design basis and design basis information during the development of the Second Ten-Year Interval ASME Section XI Inservice Testing Program Plan. The original development work on the Second Ten-Year Interval ASME Section XI Inservice Testing Program Plan bases, including the review and approval process, did not identify, analyze, and incorporate all the relevant information concerning the required functions of the valves. Contributing to the cause was the reliance solely on the incorrect safety classification determination to conclude that these valves did not have a required safety function to open.

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-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)	DOCKET NUMBER (2)	LER NUMBER (5)			PAGE (3)
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Nine Mile Point Unit 2	05000410	99	- 20	- 00	03 OF 05

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

III. ANALYSIS OF EVENT

This event is reportable in accordance with 10CFR50.73(a)(2)(i)(B), "Any operation or condition prohibited by the plant's Technical Specifications." Due to their active function to open, Valves 2IAS*SOV164 and 2IAS*SOV165 are required to be tested in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable addenda. These valves were not stroke-time tested in the open direction. Therefore, NMPC did not meet Technical Specifications Surveillance Requirement 4.0.5.

The automatic depressurization system utilizes seven main steam line safety relief valves. The operation of automatic depressurization system with the low-pressure coolant injection mode of residual heat removal system and/or low pressure core spray system functions as an alternate to the operation of the high pressure coolant injection system for protection against fuel cladding damage upon a loss-of-coolant accident. The automatic depressurization system is designed to withstand an accident environment and still perform its safety-related functions for 100 days following an accident. The nitrogen supply, which includes the 5-day supply in the nitrogen receiver tanks and the emergency nitrogen tube trailer supply connection, require Valves 2IAS*SOV164 and 2IAS*SOV165 to open to provide the nitrogen to the accumulators.

After the identification of the missed testing, the valves were satisfactorily reverse flow tested, which demonstrated that the valves were able to perform their safety function.

NMPC performed a probabilistic risk analysis for this condition and determined that it is non-risk significant because subsequent testing of the valves was satisfactory.

Based on the information provided above, the failure to perform inservice testing on the two valves used in the automatic depressurization system did not adversely affect the health and safety of the general public or plant personnel.

IV. CORRECTIVE ACTIONS

1. NMPC declared the automatic depressurization system inoperable until proper testing requirements for Valves 2IAS*SOV164 and 2IAS*SOV165 were added to the ASME Section XI Inservice Testing Program and the valves were satisfactorily stroke-time tested in the open direction.
2. Deviation/Event Report 2-1999-3876 was issued by engineering to address the inconsistency between Safety Class Determination 90-066 and the Updated Safety Analysis Report Section 9.3.1.4, Automatic Depressurization System as part of the extent of condition review.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION. REQUEST: 30.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-330), 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) Nine Mile Point Unit 2	DOCKET NUMBER (2) 05000410	LER NUMBER (6)			PAGE (3) 04 OF 05
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TEXT (if more space is required, use additional NRC Form 366A's) (17)

IV. CORRECTIVE ACTIONS (Cont'd)

3. In addition to the review of approximately 300 valves that were classified as passive or had their testing requirements reduced, NMPC will review the safety classification determinations and ASME Section XI Inservice Test Program and basis documents requirements associated with valves that are only tested in one direction to ensure that the safety classification determinations and testing requirements are correct by March 31, 2000.
4. The majority of the corrective actions described in Licensee Event Reports 99-09, 99-11, and 99-14, Supplement 1 determine the extent of condition, address inadequacies in past management's expectations and communication of these expectations, and address the failure of plant personnel to adhere to management's expectations for reviewing and researching design and licensing documents. These corrective actions address the causes in these areas.

V. ADDITIONAL INFORMATION

- A. Failed components: none.
- B. Previous similar events:

Licensee Event Reports 99-14 Supplement 1 (Missed Technical Specification ASME Section XI Surveillance Testing), 99-09 (Nonconformance with Technical Specification Regarding ASME Section XI Class 2 Check Valve Reverse Flow Testing), and 99-08 (Inadequate Surveillance of Reactor Core Isolation Cooling Check Valve) describe NMPC's failure to properly test safety-related check valves. These licensee event reports were identified as the result of the investigation stemming from Licensee Event Report 97-07 (Violation of Technical Specifications Regarding ASME Code Section XI Class 2 Weld Inspection Requirements Due to Improper Use of an Exemption). Licensee Event Report 99-11 (Valves Not Correctly Tested as Required by Technical Specification 4.0.5) identifies 26 valves in multiple systems that were improperly reclassified as passive valves and were not being properly tested. Licensee Event Report 99-18 (Valves in the Steam Condensing Mode Were Not Tested as Required by Technical Specification 4.0.5) and 99-19 (Valves in the Standby Liquid Control System Were Not Tested as Required by Technical Specification 4.0.5) identified additional valves that were not being properly tested. The corrective actions from Licensee Event Report 99-11 identified these additional valves.

LICENSEE EVENT REPORT (LER)
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		99	- 20	- 00	

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

V. **ADDITIONAL INFORMATION (Cont'd)**

C. Identification of components referred to in this Licensee Event Report:

Components	IEEE 803A Function	IEEE 805 System ID
Residual Heat Removal System	N/A	BO
Low Pressure Core Spray System	N/A	BM
Automatic Depressurization System	N/A	N/A
High Pressure Core Spray System	N/A	BG
Instrument Air System	N/A	LD
Emergency Nitrogen Tube Trailer Supply Connection	CON	LK
Nitrogen Receiver Tank	TK	LK
Accumulators	ACC	N/A
Safety Relief Valve	RV	SB
Instrument Air Valves	V	LK