

Niagara Mohawk

November 24, 1999
NMP2L 1911

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

RE: Docket No. 50-410
LER 99-19

Gentlemen:

In accordance with 10CFR50.73(a)(2)(i)(B), we are submitting LER 99-19, "Two Standby Liquid Control Valves Not Tested As Required By Technical Specification 4.0.5."

Very truly yours,



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)

Two Standby Liquid Control 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)
10	26	99	99	019	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 checked="" type="checkbox"/> OTHER 50.73(a)(2)(i)(B)
	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<i>(Specify in Abstract below and in Text, NRC Form 3654)</i>
	<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

Stephen Geier, Manager Engineering

TELEPHONE NUMBER

(315) 349-7887

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 October 26, 1999, while at 100 percent power, Niagara Mohawk Power Corporation identified that two standby liquid control system valves were not being reverse flow tested 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. 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 a misapplication of the design basis and design standards. Contributing to the cause was inadequate reviews for the safety classification determinations and the safety evaluation that removed the valves from the Inservice Testing Program.

Valves 2SLS*V12 and 2SLS*V14 were added to the Second Ten-Year Interval Inservice Testing Program and satisfactorily reverse flow tested. The design documents will be revised and a licensing document change request will be initiated to incorporate changes to 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: 50.8 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	LER NUMBER (6)			PAGE (3) 02 OF 05
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
		99	- 19	- 00	

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

I. DESCRIPTION OF EVENT

On October 26, 1999, while at 100 percent power, Niagara Mohawk Power Corporation (NMPC) identified that two standby liquid control system check valves were not being reverse flow tested. The Updated Safety Analysis Report states that in the event a relief valve failed open, check valves are provided to prevent bypass flow from one train through an open relief valve on the other train. Therefore, the valves must be able to close to prevent this bypass flow. The valves are in the Inservice Testing Program, but were not reverse flow tested because reverse flow prevention was not considered an active safety function. Therefore, Technical Specification Surveillance Requirement 4.0.5 was not met.

The standby liquid control system consists of one boron storage tank, two independent trains (each train has a suction line, a pump, a relief valve, and a check valve), and downstream of these components, the two trains combine in a common delivery line to the reactor pressure vessel. Check Valves 2SLS*V12 and 2SLS*V14 are located on the pump discharge lines downstream of the pump and relief valve. The relief valve outlet is directed back to its pump suction line. In the event that the relief valve opened and failed to reclose, Check Valves 2SLS*V12 and 2SLS*V14 would prevent bypass flow from one train back through an open relief valve in the other train.

A review of the First Ten-Year Inservice Testing Program documentation revealed that the valves were reverse flow tested. The valves' classification for the reverse flow direction were changed from active to passive in the Inservice Testing Program based on Safety Classification Determination 91-047 and Safety Evaluation 95-047. Safety Classification Determination 91-047 stated that the standby liquid control system is an independent backup to the control rod drive system, and that the standby liquid control system was not therefore required to meet the single failure criterion. The safety classification determination did not address failure of a relief valve coupled with the failure of the untested check valve to close, which would result in both standby liquid control trains being inoperable. Safety Evaluation 95-047, approved in 1997, was intended to resolve inconsistencies between the Updated Safety Analysis Report and the Inservice Testing Program. The safety evaluation relied on the safety classification determination and the change was approved. In December 1997, the Inservice Testing Program was revised to eliminate reverse flow testing of the check valves.

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 Inservice Testing Program that were classified as passive or had testing requirements reduced and were being reviewed 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 standards. Contributing to the cause was inadequate reviews for the safety classification determination and the safety evaluation that approved the change to the Inservice Testing Program.

**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 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

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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, Valves 2SLS*V12 and 2SLS*V14 are required to be reverse flow tested in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable addenda. These valves were not reverse flow tested. Therefore, NMPC did not meet Technical Specifications Surveillance Requirement 4.0.5.

The standby liquid control system is required only to shutdown the reactor and keep the reactor from going critical as the reactor cools. The system is needed only in the improbable event that sufficient control rods cannot be inserted in the reactor to accomplish shutdown and cooldown in the normal manner. To assure the availability of the standby liquid control system, two trains of components are provided in parallel. In each division train, a check valve is provided downstream of a relief valve in the pump discharge line to prevent bypass flow in the event that a relief valve opened and failed to reclose.

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 standby liquid control system did not adversely affect the health and safety of the general public or plant personnel.

IV. CORRECTIVE ACTIONS

- NMPC declared the standby liquid control system inoperable until the testing requirements for Valves 2SLS*V12 and 2SLS*V14 were added to the Inservice Testing Program and the valves were satisfactorily reverse flow tested.
- Safety Classification Determination 91-047 will be revised, and a licensing document change request will be initiated to incorporate the changes into the active valve table during the next update of the Updated Safety Analysis Report. These actions will be completed by January 31, 2000.

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

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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 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, 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) also, identified four valves in the steam condensing mode were not being properly tested. The corrective actions from Licensee Event Report 99-11 would have identified these additional valves.

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

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION. REQUEST: 90.0 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.

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

Components	IEEE 803A Function	IEEE 805 System ID
Standby Liquid Control System	N/A	BR
Check Valve	V	BR
Relief Valve	RV	BR
Pump	P	BR
Reactor	RCT	AC