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ACCESSION NBR:8803250085 DOC.DATE: 88/03/21 NOTARIZED: NO DOCKET # FACIL: 50-220 Nine Mile Point Nuclear Station, Unit 1, Niagara Powe 05000220 AUTH.NAME AUTHOR AFFILIATION MAZZAFERRO, P.A. Niagara Mohawk Power Corp. LEMPGES, T.E. Niagara Mohawk Power Corp. RECIP.NAME **RECIPIENT AFFILIATION**

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SUBJECT: LER 88-005-00:on 880220, liquid poison sys isolation valves local leak rate test failed.

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ABSTRACT

On February 19 and 20, 1988, with Nine Mile Point Unit 1 in a refueling outage, both containment isolation valves of the Liquid Poison System failed their local leak rate test. The tests were being performed in accordance with 10 CFR 50 Appendix J requirements. The results of these tests determined the measured leakage to be greater than the Technical Specification allowable limit.

The root cause of this event has not been determined at this time. Valve inspection is scheduled within the refueling outage and will be performed in accordance with the assigned priority.

Initial corrective action involved declaring the Liquid Poison System inoperable and generating station work requests to inspect the valves and repair as necessary. Subsequent corrective action will be to inspect the valves, determine the root cause, repair as necessary, and retest the valves.

Since the root cause of this event has not been determined and the corrective actions not completely accomplished, a supplemental report will be submitted addressing these items.

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U.S. NUCLEAR REGULATORY COMMISSION APPROVED OMB NO. 3150-0104

		EXPIRES: 8/31/	/88
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DESCRIPTION OF EVENT

IRC Form 366A

9-83)

On February 19 and 20, 1988, with Nine Mile Point Unit 1 (NMP1) in a refueling outage, both containment isolation valves of the Liquid Poison System failed their local leak rate test (LLRT). Type C leak rate tests were being performed in accordance with the requirements of 10 CFR 50, Appendix J, "Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors." Instrument and Control (I&C) technicians were testing the Liquid These valves are 2 inch, Crane Poison System containment isolation valves. Company, Model 1532V check valves. The test procedure, N1-ISP-C-25.2, "Primary Containment Isolation Valve Leak Rate Tests," requires the measured leakage to be less than 12.9 SCFH at 22 psig for successful completion. (This 0n the NMP1 Technical Specifications.) identified in limit is February 19, 1988, the inboard isolation valve, 42.1-02, was tested and the measured leakage rate was off-scale high. On February 20, 1988, the outboard isolation valve, 42.1-03, was tested and the measured leakage rate was also off-scale high. With the failure of both valves, the containment penetration was considered inoperable with respect to providing a leakage boundary and the Liquid Poison System was also considered inoperable. A station work request and occurrence report were written for each of the valves.

On February 21, 1988, the I&C technicians again performed N1-ISP-C-25.2 in order to quantify the leakage past the Liquid Poison isolation valves. The test for 42.1-02 again read off-scale high. The second test for 42.1-03, however, resulted in a measured leakage rate of 2.13 SCFH. Apparently, valve 42.1-03 seated better and reduced the leakage path. Since the cause for the reduced leakage could not be readily determined, the Liquid Poison System will remain inoperable until the cause of the failure is determined, appropriate corrective actions are taken, and both isolation valves successfully complete their LLRT. The results of these activities will be described in a supplement to this LER, scheduled for submission by May 31, 1988.

There were no other inoperable structures, systems or components that contributed to this event.

CAUSE OF THE EVENT

The specific root cause for this event has not been determined. Final evaluation of the failures will be made following the inspection of valves 42.1-02 and 42.1-03 under station work requests. The determination of the root cause will be included in the supplement to this LER.

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ANALYSIS OF THE EVENT

This event is reportable in accordance with 10 CFR 50.73(a)(2)(i), for exceeding a Technical Specification limit, and 10 CFR 50.73(a)(2)(ii), as a degradation of a principal safety barrier.

There were no adverse safety consequences associated with this event. Even though a primary containment penetration was inoperable with respect to a leakage boundary, primary containment integrity was not required at the time of discovery since NMPL was in a refueling outage and the primary containment dome was removed.

If this condition existed with the reactor in operation, there also would not have been any adverse safety consequences. The Liquid Poison System is connected directly to the reactor vessel and the isolation valves (check valves) are held closed with reactor pressure (approximately 1000 psig). Any leakage past these valves would pressurize the system from the isolation valves to the system explosive valves. These valves are leak proof and located on the discharge of the redundant pumps. Therefore, there is no potential for radioactive material to be released or plant personnel or public health and safety to be compromised.

CORRECTIVE ACTIONS

Initial corrective actions taken included declaring the Liquid Poison System inoperable, generating station work requests to inspect and correct the root cause, and generating an occurrence report to document the failure of each valve to pass its LLRT. Subsequent corrective actions will be to inspect each valve, determine the root cause of the failures, correct the problem and retest each valve by performing an LLRT. These actions are presently included in the overall refueling outage schedule and will be completed in accordance with the assigned priority. The subsequent actions taken, and the results of these actions, will be described in the supplement to this LER.

ADDITIONAL INFORMATION

Information on the Liquid Poison System isolation valves that failed their LLRT is as follows (both valves have the same information):

NUREG-1022	IEEE 805-1983	IEEE 803A-1983	NPRDS
Cause	System	Component	Manufacturer
В	BR	ISV	C665

The following is a list of previous NMP1 LERs that describe LLRT failures of primary containment penetrations.

81-16	82-17	82-19	82-21
81-27	82-18	82-20	82-22

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NIAGARA MOHAWK POWER CORPORATION



301 PLAINFIELD ROAD SYRACUSE, NY 13212



THOMAS E. LEMPGES VICE PRESIDENT—NUCLEAR GENERATION

NMP32643

March 21, 1988

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

RE: Docket No. 50-220 LER 88-05

Gentlemen:

In accordance with 10 CFR 50.73, we hereby submit the following Licensee Event Report:

LER 88-05

Which is being submitted in accordance with 10 CFR 50.73 (a)(2)(i)(B), "Any operation or condition prohibited by the plant's Technical Specifications;" and

10 CFR 50.73 (a)(2)(ii), "Any event or condition that resulted in the condition of the nuclear power plant, including its principal safety barriers, being seriously degraded...".

A 10 CFR 50.72 telephone notification was made at 1114 hours on February 20, 1988.

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

Very truly yours,

T. E. Lempges Vice President Nuclear Generation

TEL/meh

Attachment

cc: William T. Russell Regional Administrator

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