Niagara Mohawk®

John T. Conway
Vice President
Nuclear Generation

Phone: 315.349.4213
Fax: 315.349.2605

January 11, 2001
NMP1L 1565

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

RE: Docket No. 50-220
Licensee Event Report 00-05

Gentlemen:

In accordance with 10 CFR 50.73(a)(2)(i)(B) and 10 CFR 50.73(a)(2)(v), we are submitting Licensee Event Report 00-05, "Loss of Secondary Containment due to Both Reactor Building Track Bay Inner and Outer Doors being Opened Simultaneously."

Very truly yours,

John T. Conway
Vice President Nuclear Generation

JTC/CES/cld

Attachment

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

IE22

NRC FORM 366 U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104
EXPIRES:

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

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Nine Mile Point Unit 1	05000220	01 OF 04

TITLE (4)
Loss of Secondary Containment due to Both Reactor Building Track Bay Inner and Outer Doors being Opened Simultaneously

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	29	00	00		05	00	01	11	01	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

- ☐ 20.2201(b)
- ☐ 20.2203(a)(1)
- ☐ 20.2203(a)(2)(i)
- ☐ 20.2203(a)(2)(ii)
- ☐ 20.2203(a)(2)(iii)
- ☐ 20.2203(a)(2)(iv)
- ☐ 20.2203(a)(2)(v)
- ☐ 20.2203(a)(3)(i)
- ☐ 20.2203(a)(3)(ii)
- ☐ 20.2203(a)(4)
- ☐ 50.36(c)(1)
- ☐ 50.36(c)(2)
- ☒ 50.73(a)(2)(i)
- ☐ 50.73(a)(2)(ii)
- ☐ 50.73(a)(2)(iii)
- ☐ 50.73(a)(2)(iv)
- ☒ 50.73(a)(2)(v)
- ☐ 50.73(a)(2)(vii)
- ☐ 50.73(a)(2)(viii)
- ☐ 50.73(a)(2)(x)
- ☐ 73.71
- ☐ OTHER *(Specify in Abstract below and in Text, NRC Form 366A)*

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
David Topley - Manager Operations Unit 1	(315) 349 - 1752

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO EPIX		CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO EPIX

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
☐ YES *(If yes, complete EXPECTED SUBMISSION DATE)*	☒ NO				

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

On November 30, 2000, while the plant was at 100 percent, Niagara Mohawk Power Corporation identified that the reactor building track bay inner door had not been fully closed while the outer door was inoperable and open, resulting in a breach of secondary containment. The preliminary investigation concluded that the inner door was partially opened for 2 hours and 39 minutes. On December 12, 2000, further investigation determined that the inner door was partially open for approximately 25 hours. This resulted in a condition that could have prevented the fulfillment of the safety function of secondary containment that affects the control of the release of radioactive material and a condition that is prohibited by Technical Specifications.

The cause of the secondary containment door being partially open is an inadequate procedure. Contributing causes are an inadequate as-built door configuration and a lack of preventive maintenance.

The inner door was closed and verified closed. Procedure N1-OP-52, "Reactor Building Track Bay Doors," was revised to provide specific guidance of how operators are to verify that the door is fully closed and a preventive maintenance task will be developed and implemented.

I. DESCRIPTION OF EVENT

On November 29, 2000, while the plant was at 100 percent power, the reactor building track bay inner door was opened three times to support receipt of new fuel with the last operation occurring at 1341 hours. On November 30, 2000, at 1419 hours, an operator noted airflow underneath the inner door with the outer door open. The inner door was immediately declared inoperable and the control room operators entered Technical Specifications 3.4.1.b and 3.4.3.b.1, which requires the initiation of a shutdown if secondary containment is not restored within 4 hours. At 1440 hours, an operator verified that the inner door was closed with a properly inflated door seal and the Technical Specification action statements were exited.

A preliminary investigation determined that the maximum amount of time that the inner door was partially opened was 2 hours and 39 minutes. A maintenance person and a locksmith observed that the inner door was closed at approximately 1140 when they were visually inspecting the concrete around the door. On December 12, 2000, further investigation determined that the maintenance person's and locksmith's observation of the inner door was insufficient to positively confirm that the door was fully closed. Due to the thickness of the door, one can not verify that the door is closed by standing and looking at the location of where the door and floor meet. The inner door was approximately one inch open for approximately 25 hours. This resulted in a condition that could have prevented the fulfillment of the safety function of secondary containment that affects the control of the release of radioactive material and a condition that is prohibited by Technical Specifications.

The operator closing the door, most likely, unknowingly relaxed pressure on the door close push-button, at that point, the door stopped moving approximately one inch from being closed. The door close push-button must be continually depressed for door movement to occur. Procedure N1-OP-52, "Reactor Building Track Bay Doors," directs the operator to depress and hold the door closed push-button, confirm proper operation by observing that the door closes fully and that the door closed indicating light is illuminated. Based on a test, the investigation team discovered that the door closed indicating light could be illuminated without the door being fully closed; The investigation team concluded that the procedure was inadequate because it did not specify how to verify that the door was fully closed. The training provided for the operators was based on the procedure. This procedure relied on the subjective judgement of the operator that the door had closed fully, and the door closed indicating light. This door closed indicating light was demonstrated to provide a door closed indication without the door being fully closed.

II. CAUSE OF EVENT

The cause of the secondary containment door being partially open is an inadequate procedure. The procedure did not provide sufficiently detailed guidance on how to verify that the door was fully closed. Contributing causes are an inadequate as-built door configuration and ineffective preventive maintenance. The inadequate as-built door configuration allowed the door to be stopped short of full closure, but still provide closed

II. CAUSE OF EVENT (Cont'd)

indication. The lack of preventive maintenance to inspect and verify adequate operation of the inner door closed limit switch contributed to the switch actuating before the door was fully closed.

III. ANALYSIS OF EVENT

This event is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B) and 10 CFR 50.73(a)(2)(v). 10 CFR 50.73(a)(2)(i)(B) requires a report for any operation or condition prohibited by the plant's Technical Specifications. Technical Specifications 3.4.1.b and 3.4.3.b.1 require the initiation of a shutdown if secondary containment is not restored within 4 hours. The inner door was partially open for approximately 25 hours while the outer door was inoperable. Therefore, Technical Specifications 3.4.1.b and 3.4.3.b.1 were not met. 10 CFR 50.73(a)(2)(v) requires a report when any event alone could have prevented the fulfillment of the safety function of structures or systems that are needed to control the release of radioactive material. Since the inner door was partially open for approximately 25 hours while the outer door was inoperable, the leakage rate exceeded the secondary containment leakage limits in Technical Specification 3.4.1.

During the time that the outer door was inoperable and the inner door was partially open, (from November 29-30, 2000), the reactor building differential pressure did not go above -0.25 inches. Also, during this time frame, primary containment was operable, which would have limited the release of radioactive material.

Niagara Mohawk Power Corporation performed a probabilistic risk analysis of this event and concluded that the open door does not contribute to core damage probability or frequency and the large early release probability for this event is 3.6E-09.

Based on the information provided above, there were no adverse safety consequences as a result of this event. The inner door being opened while the outer door was inoperable, posed no threat to the health and safety of the general public or plant personnel.

IV. CORRECTIVE ACTIONS

1. The inner door was shut and the inner door was verified shut with the seal properly inflated.

2. A match-mark was installed on the inner door to provide a clear, positive indication that the door is fully closed until issuing a revision to Operating Procedure N1-OP-52.

3. As an interim measure, Operating Procedure N1-OP-52 was revised to require the operator to visually confirm that the bottom door seal is in complete contact with the door sill plate. Once Corrective Action 4 and 5 are completed, this interim measure will be re-evaluated for continued applicability by August 30, 2001.

IV. CORRECTIVE ACTIONS (Cont'd)

4. A preventive maintenance task to verify proper operation of the inner door closed limit switch will be developed by February 28, 2001.

5. The configuration of the door closure and seal mechanisms will be evaluated and modified if appropriate by July 27, 2001.

V. ADDITIONAL INFORMATION

A. Failed components: None

B. Previous similar events: None

C. Identification of components referred to in this license event report.

Components	IEEE 803A Function	IEEE 805 System ID
Reactor Containment Building (Primary Containment)	N/A	NH
Reactor Building (Secondary Containment)	N/A	NG
Door	DR	NG
Limit Switch	ZIS	NG
Seal	SEAL	NG
Indicating Light	IL	NG