

# ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9002070108      DOC. DATE: 90/01/30      NOTARIZED: NO      DOCKET #  
 FACIL: 50-410 Nine Mile Point Nuclear Station, Unit 2, Niagara Moha      05000410  
 AUTH. NAME      AUTHOR AFFILIATION  
 COLOMB, M.J.      Niagara Mohawk Power Corp.  
 WILLIS, J.L.      Niagara Mohawk Power Corp.  
 RECIP. NAME      RECIPIENT AFFILIATION

SUBJECT: LER 90-001-00 on 900103, control room special filter train actuation due to breaker cycling.

W/8      ltr.

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ACRS WYLIE		1	1	AEOD/DOA	1 1
AEOD/DSP/TPAB		1	1	AEOD/ROAB/DSP	2 2
DEDRO		1	1	NRR/DET/ECMB 9H	1 1
NRR/DET/EMEB9H3		1	1	NRR/DET/ESGB 8D	1 1
NRR/DLPQ/LHFB11		1	1	NRR/DLPQ/LPEB10	1 1
NRR/DOEA/OEAB11		1	1	NRR/DREP/PRPB11	2 2
NRR/DST/SELB 8D		1	1	NRR/DST/SICB 7E	1 1
NRR/DST/SPLB8D1		1	1	NRR/DST/SRXB 8E	1 1
<u>REG FILE</u> 02		1	1	RES/DSIR/EIB	1 1
RGNI FILE 01		1	1		
<b>EXTERNAL:</b>					
EG&G WILLIAMS, S		4	4	L ST LOBBY WARD	1 1
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**NY NIAGARA  
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NINE MILE POINT NUCLEAR STATION/P.O. BOX 32, LYCOMING, N.Y. 13093/TELEPHONE (315) 343-2110

NMP55218

January 30 , 1990

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

RE: Docket No. 50-410  
LER 90-01

Gentlemen:

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

LER 90-01 Is being submitted in accordance with 10CFR50.73  
(a)(2)(iv), "Any event or condition that results in  
manual or automatic actuation of any Engineered Safety  
Feature (ESF).

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

Very truly yours,



J. L. Willis  
General Superintendent  
Nuclear Generation

JLW/DPS/lmc

ATTACHMENT

xc: Regional Administrator, Region I  
Sr. Resident Inspector, W. A. Cook

9002070108 900130  
PDR ADOCK 05000410  
S FLC

*Cont No  
P306179510*

*TE22  
11*



LICENSEE EVENT REPORT (LER)

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.

FACILITY NAME (1)  
Nine Mile Point Unit 2

DOCKET NUMBER (2)  
0 5 0 0 0 4 1 0 1 OF 0 5

PAGE (3)  
1 OF 0 5

TITLE (4)  
Control Room Special Filter Train Actuation due to Breaker Cycling

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)
01	03	90	90	001	00	01	30	90	N/A		0 5 0 0 0
									N/A		0 5 0 0 0

OPERATING MODE (9) 4

POWER LEVEL (10) 0 0 0

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

20.402(b)	20.405(c)	<input checked="" type="checkbox"/>	50.73(a)(2)(iv)	73.71(b)
20.405(a)(1)(i)	50.38(c)(1)	<input type="checkbox"/>	50.73(a)(2)(v)	73.71(c)
20.405(a)(1)(ii)	50.38(c)(2)	<input type="checkbox"/>	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
20.405(a)(1)(iii)	50.73(a)(2)(ii)	<input type="checkbox"/>	50.73(a)(2)(viii)(A)	
20.405(a)(1)(iv)	50.73(a)(2)(iii)	<input type="checkbox"/>	50.73(a)(2)(viii)(B)	
20.405(a)(1)(v)	50.73(a)(2)(iii)	<input type="checkbox"/>	50.73(a)(2)(ix)	

LICENSEE CONTACT FOR THIS LER (12)

NAME: Michael J. Colomb, Superintendent Operations Unit 2

TELEPHONE NUMBER: 3 1 5 3 4 9 - 7 9 5 2

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)  NO

EXPECTED SUBMISSION DATE (15): 0 4 3 0 9 0

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

**ABSTRACT**

On January 3, 1990, at approximately 0928 hours, Nine Mile Point Unit 2 experienced an actuation of an Engineered Safety Feature. Specifically, the Division 1 Control Room Special Filter Train was started automatically by a spurious trip of the Division 1 Control Building Ventilation Radiation Monitors. At the time of the event the plant was shutdown in Mode 4 with the vessel depressurized and reactor coolant temperature at approximately 122 degrees Fahrenheit and shutdown cooling in operation.

The root cause is still under investigation. The apparent cause of the event was the electrical interference associated with the cycling of a control building chiller breaker. The corrective actions include repair of the chiller and investigation of the radiation monitor sensitivity to electrical disturbances.



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-830), 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)  0 5   0   0   0   4   1   0	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		9 0	0 0 1	0 0	0 2	OF	0 5

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

I. DESCRIPTION OF EVENT

On January 2, 1990, at approximately 1245 hours, the Division 1 Control Room Special Filter Train was declared administratively inoperable in accordance with Tech. Spec. Interpretation #25 due to a failed surveillance (N2-OSP-HVK-Q002) on the Division 1 Control Building Chill Water Circ Pump (2HVK\*P1A). The Division 1 Control Building Chiller (2HVK\*CHL1A) was removed from service and a yellow hold out placed on the control switch for 2HVK\*CHL1A. A Work Request was generated to check the calibration of Division I Control Building Chiller Flow Transmitter (2HVK\*FT15A).

On January 3, 1990, at approximately 0928 hours, the operating shift attempted to start 2HVK\*CHL1A in accordance with Control Building Ventilation Procedure (N2-OP-53A), to perform a retest of surveillance N2-OSP-HVK-Q002. Upon the start attempt of 2HVK\*CHL1A, the chiller supply breaker (2EJS\*US1-4D) closed and opened four times in a period of approximately 26 seconds. The cause of the trip appeared to be low lube oil pressure. Concurrent with the cycling of 2EJS\*US1-4D breaker, Control Building Ventilation Radiation Monitors, 2HVC\*RE18A and 2HVC\*RE18C, tripped on a spurious high radiation signal and auto started the Division 1 Control Building Special Filter Train.

Concurrent with the cycling of 2EJS\*US1-4D breaker, Source Range Monitor (SRM) short period alarms were received on P603, investigation of the individual Source Range Monitor channels indicated short period trip on all SRM channels.

Operations personnel immediately verified the Reactor (Rx) was subcritical by checking for changes in Core power on the SRM and Intermediate Range Monitors (IRM) and verified the high radiation trip of 2HVC\*RE18A and 2HVC\*RE18C as spurious by checking the radiation monitors on the Digital Radiation Monitor System (DRMS) computer. The Control switch for 2HVC\*CHL1A was placed in Pull-to-Lock and the Control Building Ventilation system restored to normal operation using the Division 2 Control Building Chiller (2HVK\*CHL1B). No other components were inoperable which contributed to this event.

An inspection of the chiller revealed a low oil level condition that was the probable cause of the trip and cycling (the low oil level would cause a low oil pressure trip). The low oil level was not detected prior to the start attempt. (no local inspection was performed, and the condition is not annunciated).





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-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)  0 5 0 0 0 4 1 0	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
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TEXT (If more space is required, use additional NRC Form 366A's) (17)

II. CAUSE OF EVENT

The apparent cause of the event was the tripping and cycling of the chiller breaker due to low oil pressure (because of low oil level) and the sensitivity of the radiation monitors to electrical disturbances. The low oil level was caused by an oil leak from the sump to the refrigerant reservoir. The apparent cause of the chiller cycling was a sticking relay, (the cycling could not be reproduced during troubleshooting). The root cause of the sensitivity of the radiation monitors to electrical disturbances is still under investigation. The root cause, and any additional corrective actions, will be described in a supplement to this LER.

III. ANALYSIS OF EVENT

This event is reportable under 10CFR50.73(a)(2)(iv), "Any event or condition that results in manual or automatic actuation of any Engineered Safety Feature (ESF)".

The Control Room Special Filter Trains are a part of the Habitability Systems identified in the Nine Mile Point 2 USAR Section 6.4. These Habitability Systems are provided to ensure that the plant operators can remain in the main Control Room and take actions to operate the plant safely under normal conditions and to maintain it in a safe condition under all accident conditions.

The Control Building Special Filter Trains are designed to remove radioiodines from the Control Room ventilation outdoor air supply during a design basis accident.

The spurious trip of 2HVC\*RE18A and 2HVC\*RE18C placed the Division 1 Control Building Special Filter Train in service when its operation was not required. This is a conservative action. The duration of this event is undetermined as the chiller has not been returned to operable status.

IV. CORRECTIVE ACTIONS

1. The relay that is suspected of sticking will be replaced when a replacement is received.



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-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)  0 5   0   0   0   4   1   0	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		9   0	-   0   0   1	-   0   0	0   4	OF   0   5

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

2. The sensitivity of the radiation monitors to electrical disturbances is being investigated. Recommended changes will be evaluated and the actions taken will be described in a supplement to this LER.
3. The oil leakage problem is being investigated and will be repaired as required.
4. N2-OP-53A Section 1.0 has been changed to perform operational checks prior to starting an idle chiller.
5. A review of N2-ODI-5.08, 5.0, Operator Good Practices, with shift personnel stressing the reason and importance of prestart checks on idle equipment has been completed.

V. ADDITIONAL INFORMATION

A. Identification of components referred to in this LER.

COMPONENT	803		805	
	FUNCTION	SYSTEM ID	FUNCTION	SYSTEM ID
2HVK*P1A - Division 1 Control Building Chiller Water Circ Pump		VI		
2HVK*FT15A - Division 1 Control Building Chiller - Chilled Water Flow Transmitter	FIT	VI		
2HVK*CHL1A - Division 1 Control Building Chiller	CHU	VI		
2EJS*US1-4D- 600 VAC Supply Breaker for 2HVC*CHL1A	BKR	VI		
2HVC*RE18A - Division 1 Control Building Ventilation Intake Radiation Monitors	MON	IL		
2HVC&RE18C - Division 1 Control Building Ventilation Intake Radiation Monitors	MON	IL		
SRM Channel- Source Range Monitors	MON	IG		
IRM Channel- Intermediate Range Monitors A, B, C, D, E, F, G, H	MON	IG		



2  
1

LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 60.0 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)  0   5   0   0   0   4   1   0	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		9   0	-   0   0   1	-   0   0	0   5	OF	0   5

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

B. Previous Similar Events

There have been two previous similar events. Details can be found in LER 88-35 and LER 88-20.

The corrective action for LER 88-20 corrected the cause of the electrical disturbance and did not address the DRMS system sensitivity issue.

The circuit sensitivity to noise was the subject of a Problem Report (PR) generated after LER 88-35. Due to the lack of sufficient data and the difficulties associated with troubleshooting the equipment, no action was taken on the PR.

