

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8707090437 DOC. DATE: 87/07/02 NOTARIZED: NO DOCKET #
 FACIL: 50-410 Nine Mile Point Nuclear Station, Unit 2, Niagara Moha 05000410
 AUTH. NAME AUTHOR AFFILIATION
 RANDALL, R. G. Niagara Mohawk Power Corp.
 LEMPGES, T. E. Niagara Mohawk Power Corp.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 87-029-00: on 870603, ESF actuation occurred due to electronic spike caused by hand held radio. All equipment operated as designed & returned to svc within 70 minutes. Instrument & control procedure revised. W/870702 ltr.

DISTRIBUTION CODE: IE22D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 4
 TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
	PD1-1 LA	1 1	PD1-1 PD	1 1
	NEIGHBORS, D	1 1	MINER, S	1 1
INTERNAL:	ACRS MICHELSON	1 1	ACRS MOELLER	2 2
	AEOD/DOA	1 1	AEOD/DSP/ROAB	2 2
	AEOD/DSP/TPAB	1 1	DEDRO	1 1
	NRR/DEST/ADE	1 0	NRR/DEST/ADS	1 0
	NRR/DEST/CEB	1 1	NRR/DEST/ELB	1 1
	NRR/DEST/ICSB	1 1	NRR/DEST/MEB	1 1
	NRR/DEST/MTB	1 1	NRR/DEST/PSB	1 1
	NRR/DEST/RSB	1 1	NRR/DEST/SGB	1 1
	NRR/DLPQ/HFB	1 1	NRR/DLPQ/GAB	1 1
	NRR/DOEA/EAB	1 1	NRR/DREP/RAB	1 1
	NRR/DREP/RPB	2 2	NRR/PMAS/ILRB	1 1
	NRR/PMAS/PTSB	1 1	<u>REG FILE</u> 02	1 1
	RES DEPY GI	1 1	RES TELFORD, J	1 1
	RES/DE/EIB	1 1	RGN1 FILE 01	1 1
EXTERNAL:	EG&G GROH, M	5 5	H ST LOBBY WARD	1 1
	LPDR	1 1	NRC PDR	1 1
	NSIC HARRIS, J	1 1	NSIC MAYS, G	1 1



LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Nine Mile Point Unit 2 DOCKET NUMBER (2) 050004110 PAGE (3) 1 OF 03

TITLE (4) ESF Actuation due to Spurious Electronic Spike Caused by Hand Held Radio

EVENT DATE (5) LER NUMBER (6) REPORT DATE (7) OTHER FACILITIES INVOLVED (8)

OPERATING MODE (9) POWER LEVEL (10) THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)

LICENSEE CONTACT FOR THIS LER (12) NAME Robert G. Randall, Supervisor Technical Support TELEPHONE NUMBER 315 349-2445

Table with 12 columns: 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) X NO EXPECTED SUBMISSION DATE (15)

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

On June 3, 1987 at 1340 with the reactor at 0% power with all control rods inserted and the mode switch in "SHUTDOWN", Nine Mile Point Unit 2 experienced an Engineered Safety Feature (ESF) actuation. This event consisted of a secondary containment isolation and the initiation of Standby Gas Treatment (GTS) system and Reactor Building Ventilation Emergency Recirculation system.

The root cause of the event was a spurious electronic spike within the low flow control circuitry. The most probable cause of this transient was a hand held radio which, when keyed, may produce spurious signals in sensitive control circuits.

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Handwritten initials: JED2, 11



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			
		87	029	0b	02	OF	03

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

I. DESCRIPTION OF EVENT

On June 3, 1987 at 1340 with the reactor at 0% power with all control rods inserted and the mode switch in "SHUTDOWN", Nine Mile Point Unit 2 experienced an Engineered Safety Feature (ESF) actuation.

The event was initiated when both the above and below refueling floor normal exhaust ventilation systems isolated simultaneously (Fans 2HVR-2A and 2HVR-5A). This isolation of the fans produced a low air flow condition in the exhaust ducts and subsequently caused a secondary containment isolation and the initiation of the Standby Gas Treatment (GTS) system (Train A) and the Reactor Building Ventilation (HVR) Emergency Recirculation system (Unit Cooler 2HVR*413B). GTS Train B did not initiate because it was already running, at the time of the event, for primary containment purge.

There were no components or systems which were inoperable and/or out of service which contributed to this event. No plant system or other component failures resulted from this event.

II. CAUSE OF EVENT

At the time of the event the Instrument and Control (I&C) department was contacted to troubleshoot both the above and below refuel floor HVR transmitters and flow switches. The results showed that, both the flow switches were in calibration and the transmitters were operating within specifications. While troubleshooting the exhaust fan control circuitry the technicians experienced an exhaust fan isolation signal. This isolation signal occurred as a result of the technicians talking on a hand held radio. Depending on their location, when they pushed the radio's "talk" button it would produce a spurious electronic signal within the control circuit. This particular area of the plant was previously tested for radio interference during pre-operational testing of the HVR system. The pre-operational procedure tested the control circuits during a walkthrough of the system using a 1 Watt hand radio. There is a possibility that contractor personnel were in fact using 5 Watt hand held radios during the time of the event.

After considerable review of the event and possible causes, it was concluded that the root cause of the event per Supervisory Procedure S-SUP-1, "Root Cause Analysis Program", was an electronic spike. The probable cause was operation of a hand held radio within the vicinity of the low flow control circuitry.

III. ANALYSIS OF EVENT

There were no adverse safety consequences as a result of this event, since the reactor mode switch was in "SHUTDOWN" and all control rods were fully inserted. The initiation of the emergency ventilation systems and the isolation of the reactor building are conservative actions and pose no adverse safety consequences at any power level. The event did not in any way adversely affect any other safety systems nor the operators' ability to achieve safe shutdown.

The total duration of the event was less than 70 minutes.



LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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			
		8 7	— 0 2 9	— 0 0	0 3	OF	0 3

TEXT (If more space is required, use additional NRC Form 368A's) (17)

IV. CORRECTIVE ACTION

Immediate corrective actions were taken by the operators to investigate the event and reestablish the normal ventilation system.

As a result of LER 87-24, Niagara Mohawk is in the process of writing an I&C procedure that will recalibrate the flow switches to more adequately monitor the flow patterns in the exhaust ducts. Once these flow switches are recalibrated, there will be a greater margin between the flow switches' isolation setpoints and their output for normal operating conditions. Once this recalibration is complete (scheduled for July 16, 1987), a one time special test will be performed on the HVR system. This special test will require the system to be operated in a number of different scenarios and the systems performance monitored. This test will also include a section where specific areas of the plant will be tested with a hand held radio. Corrective measures will be implemented based on the results of this test.

The above corrective actions will be performed upon final approval of the new calibration procedure and special test, and the availability of required systems. Implementation should be completed prior to the next calibration of the flow switches, currently scheduled for July 16, 1987.

In addition, a problem report has been written to Engineering to evaluate the effects of radio interference on other safety system control circuits.

V. ADDITIONAL INFORMATION

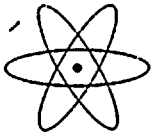
Identification of Components/Systems Referred to in this LER

Component/System	IEEE 803 EIIIS Funct	IEEE 805 System ID
Flow Switch	FS	VA
Reactor Building Ventilation (HVR)	N/A	VA
Standby Gas Treatment (GTS)	N/A	VA
Emergency Recirculation System	N/A	VA

There have been no previous similar events as a result of a hand held radio causing spurious signals at Nine Mile Point Unit 2.



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NIAGARA MOHAWK POWER CORPORATION

NIAGARA  MOHAWK

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THOMAS E. LEMPGES
VICE PRESIDENT—NUCLEAR GENERATION

July 2, 1987

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

RE: Docket No. 50-410
LER 87-29

Gentlemen:

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

LER 87-29 Is being submitted in accordance with 10 CFR 50.73
(a) (2) (iv), "Any event or condition that resulted in manual or automatic actuation of any Engineered Safety Feature (ESF), including the Reactor Protection System (RPS)."

A 10 CFR 50.72 (b) (2) (ii) report was made at 1458 hours on June 3, 1987.

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

Very truly yours,

Thomas E. Lempges
Vice President
Nuclear Generation

TEL/SCN/mjd

Attachments

cc: Regional Administrator, Region 1
Sr. Resident Inspector, W. A. Cook

JE22
1/1

