

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8709300294 DOC. DATE: 87/09/23 NOTARIZED: NO DOCKET #
 FACIL: 50-410 Nine Mile Point Nuclear Station, Unit 2, Niagara Moho 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 87-049-00: on 870825, unit experienced ESF actuation which consisted of automatic initiation of standby gas treatment sys & emergency recirculation unit cooler. Caused by personnel error. Operators will be trained. W/870923 ltr.

DISTRIBUTION CODE: IE22D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 5
 TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

NOTES: 21

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	PD1-1 LA	1 1	PD1-1 PD	1 1
	HAUGHEY, M	1 1	BENEDICT, B	1 1
INTERNAL:	ACRS MICHELSON	1 1	ACRS MOELLER	2 2
	AEOD/DOA	1 1	AEOD/DSP/NAS	1 1
	AEOD/DSP/ROAB	2 2	AEOD/DSP/TPAB	1 1
	DEDRO	1 1	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/DRIS/SIB	1 1
	NRR/PMAS/ILRB	1 1	REG-FILE 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)

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TITLE (4) **Two Standby Gas Treatment System Initiations
Due to a Low Flow Condition**

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)																																																																																																						
08	25	87	87	049	00	09	23	87	N/A		0 5 0 0 0																																																																																																						
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="12">THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)</td> </tr> <tr> <td colspan="3">OPERATING MODE (9)</td> <td colspan="3">20.402(b)</td> <td colspan="3">20.406(e)</td> <td colspan="3">60.73(a)(2)(iv)</td> <td colspan="3">73.71(b)</td> </tr> <tr> <td colspan="3">POWER LEVEL (10)</td> <td colspan="3">20.406(a)(1)(i)</td> <td colspan="3">60.36(c)(1)</td> <td colspan="3">60.73(a)(2)(v)</td> <td colspan="3">73.71(c)</td> </tr> <tr> <td colspan="3">022</td> <td colspan="3">20.406(a)(1)(ii)</td> <td colspan="3">60.36(c)(2)</td> <td colspan="3">60.73(a)(2)(vi)</td> <td colspan="3">OTHER (Specify in Abstract below and in Text, NRC Form 366A)</td> </tr> <tr> <td colspan="3"></td> <td colspan="3">20.406(a)(1)(iii)</td> <td colspan="3">60.73(a)(2)(i)</td> <td colspan="3">60.73(a)(2)(vii)(A)</td> <td colspan="3"></td> </tr> <tr> <td colspan="3"></td> <td colspan="3">20.406(a)(1)(iv)</td> <td colspan="3">60.73(a)(2)(ii)</td> <td colspan="3">60.73(a)(2)(viii)(B)</td> <td colspan="3"></td> </tr> <tr> <td colspan="3"></td> <td colspan="3">20.406(a)(1)(v)</td> <td colspan="3">60.73(a)(2)(iii)</td> <td colspan="3">60.73(a)(2)(ix)</td> <td colspan="3"></td> </tr> </table>												THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)												OPERATING MODE (9)			20.402(b)			20.406(e)			60.73(a)(2)(iv)			73.71(b)			POWER LEVEL (10)			20.406(a)(1)(i)			60.36(c)(1)			60.73(a)(2)(v)			73.71(c)			022			20.406(a)(1)(ii)			60.36(c)(2)			60.73(a)(2)(vi)			OTHER (Specify in Abstract below and in Text, NRC Form 366A)						20.406(a)(1)(iii)			60.73(a)(2)(i)			60.73(a)(2)(vii)(A)									20.406(a)(1)(iv)			60.73(a)(2)(ii)			60.73(a)(2)(viii)(B)									20.406(a)(1)(v)			60.73(a)(2)(iii)			60.73(a)(2)(ix)					
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LICENSEE CONTACT FOR THIS LER (12)

NAME Robert G. Randall, Supervisor Technical Support	TELEPHONE NUMBER
	AREA CODE 315 NUMBER 349-2445

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)

<input checked="" type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE) <input type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
		11	30	87

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

On August 25, 1987 at 0645 with the reactor at approximately 22% power and the mode switch in "RUN", Nine Mile Point Unit 2 (NMP2) experienced an Engineered Safety Feature (ESF) actuation. This event consisted of an automatic initiation of the Standby Gas Treatment System (SBGTS) and an emergency recirculation unit cooler. At 0834 the same day, with the reactor at approximately 22% power and the mode switch in "RUN", NMP2 experienced a second ESF actuation. This event also consisted of an automatic initiation of the SBGTS system and an emergency recirculation unit cooler. Both events occurred while attempting to restore normal reactor building ventilation.

The cause of the first event is attributed to a cognitive personnel error. The cause of the second event is unknown, and the investigation is ongoing. A supplement to LER 87-49 will be submitted by November 30, 1987.

Corrective action will include Reactor Building Ventilation System (HVR) training for operators and an independent evaluation of the SBGTS automatic initiation logic.

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

I. DESCRIPTION OF EVENTS

On August 25, 1987 at 0645 with the reactor at approximately 22% power and the mode switch in "RUN", Nine Mile Point Unit 2 (NMP2) experienced an Engineered Safety Feature (ESF) actuation. At 0834 the same day, with the reactor at approximately 22% power and the mode switch in "RUN", NMP2 experienced a second ESF actuation. Both events consisted of an automatic initiation of the Standby Gas Treatment System (SBGTS) and an emergency recirculation unit cooler.

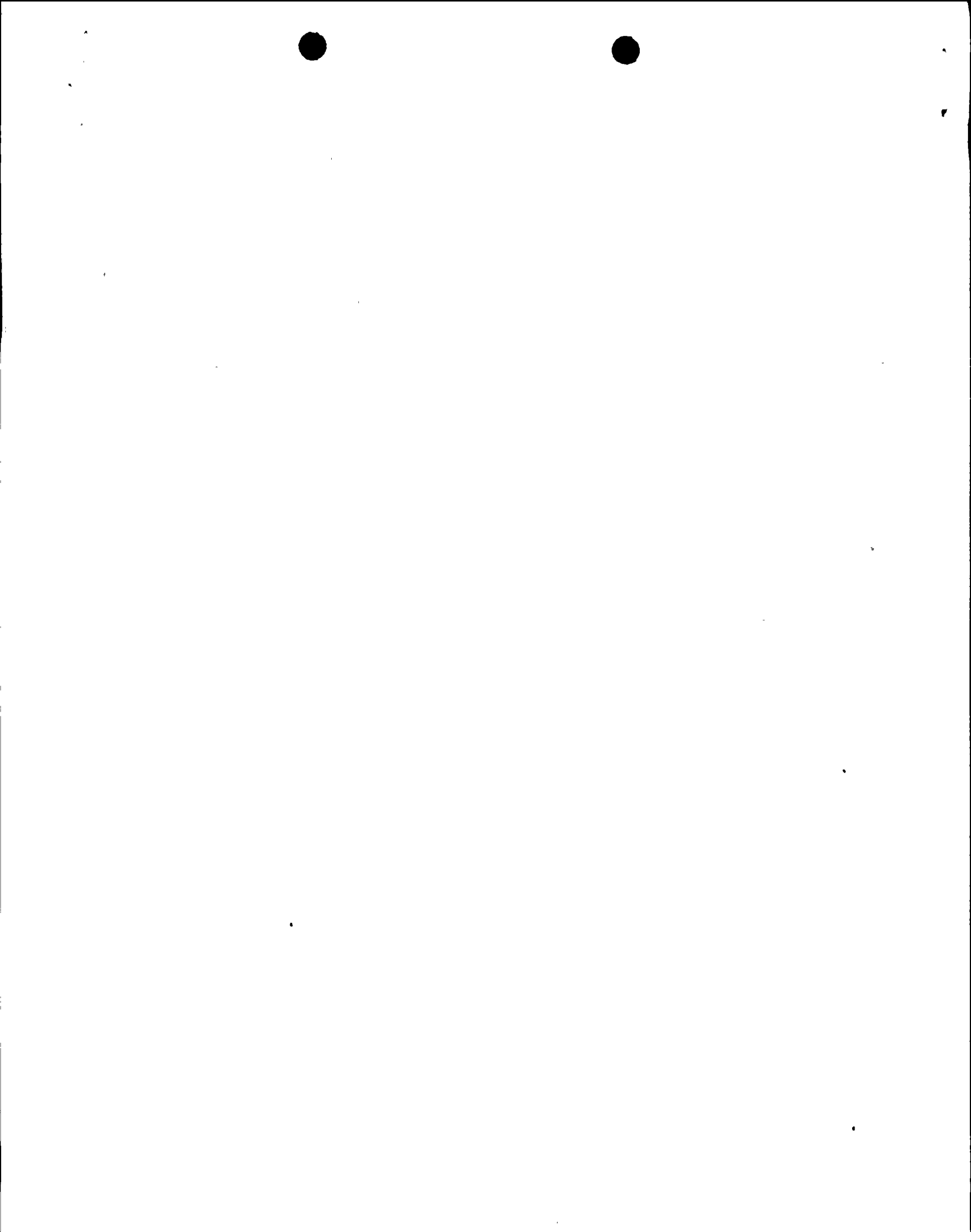
On August 25, 1987 Operations personnel were performing surveillance procedure N2-OSP-HVR-Q002, "Reactor Building Ventilation System Automatic Isolation Damper Operability Test". In accordance with N2-OSP-HVR-Q002, the SBGTS and emergency recirculation unit coolers are placed in service and normal reactor building ventilation shutdown, each per its respective operating procedure.

The initial ESF actuation occurred while Operations was attempting to restore the Reactor Building (RB) ventilation system to normal. The operating procedure for the RB ventilation system specifies that both a supply and exhaust fan should be started simultaneously. The operator performing the system startup at the local control panel failed to notice this precaution in the procedure so only the exhaust fan was started. With an exhaust fan running RB vacuum increased as air was being drawn out. The fan tripped when the reactor building ambient differential pressure reached -3" Water Gauge (WG) creating a low flow condition. SBGTS Train "B" and recirculation unit cooler 2HVR*UC413B automatically started on the low flow signal. SBGTS Train "A" and recirculation unit cooler 2HVR*UC413A were already in operation at the time of the event.

Immediate operator actions were to place emergency recirculation unit cooler "A" in pull-to-lock and to evaluate the actions necessary to avoid a recurrence.

The second ESF actuation also occurred while Operations was attempting to restore normal RB ventilation. Exhaust fan 2HVR-FN5A stopped at approximately 0834 creating a low flow condition. Both trains of the SBGTS and recirculation unit cooler 2HVR*UC413B automatically started as designed on the subsequent low flow signal. What caused the fan to stop is unknown, and the investigation is ongoing.

There were no inoperable systems which contributed to this event.



LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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Nine Mile Point Unit 2

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

II. CAUSE OF EVENTS

The cause of the first event is attributed to a cognitive personnel error. The operating procedure for the RB ventilation system specifies that both the supply and exhaust fan be started simultaneously. The operator at the local control panel failed to notice this precaution in the procedure so only the exhaust fan was started. With an exhaust fan running RB vacuum increased as air was drawn out. The fan tripped when the reactor building to ambient differential pressure reached -3"WG. SBGTS Train "B" and recirculation unit cooler 2HVR*UC413B automatically started as designed on the subsequent low flow signal.

The cause of the second event is unknown. Exhaust fan 2HVR-FN5A stopped, creating a low flow condition. Both trains of the SBGTS and recirculation unit cooler 2HVR*UC413B automatically started as designed on the low flow signal.

III. ANALYSIS OF EVENTS

In reference to both events, the secondary containment isolations and initiations of the standby gas treatment system and recirculation unit coolers are conservative actions and pose no adverse safety consequences at any reactor power level. The events did not in any way adversely affect any other safety systems nor the operators ability to achieve safe shutdown.

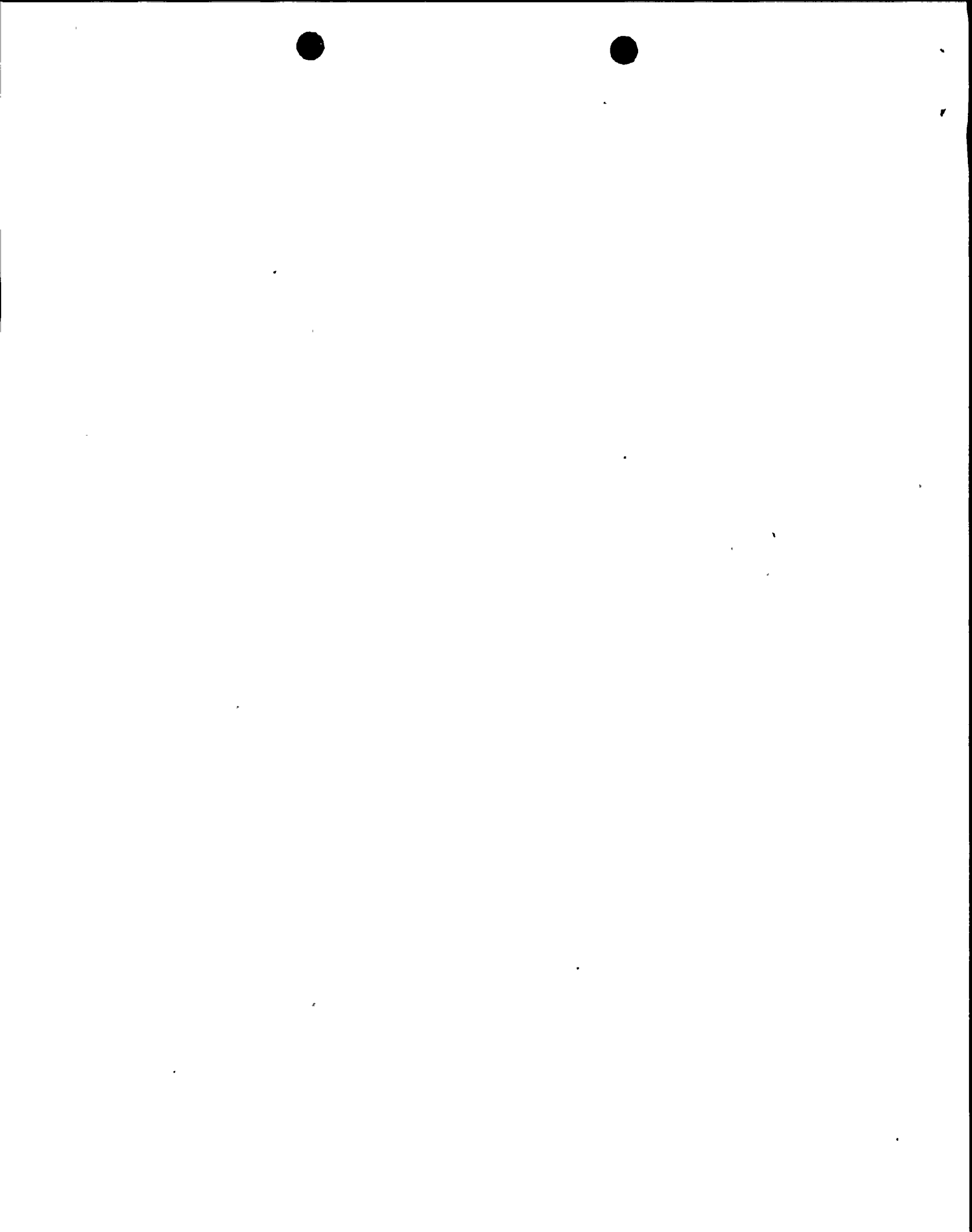
IV. CORRECTIVE ACTIONS

Corrective actions will be as follows:

1. An evaluation, independent of the original designers and startup engineers, is currently being performed to reduce unwanted SBGTS initiations. The focus of this evaluation is to enhance the SBGTS automatic initiation logic to reduce unnecessary challenges to the SBGTS from the radiation monitoring system and the Reactor Building Ventilation System (HVR). Modifications and/or procedure changes shall be made as determined by this independent evaluation.

NOTE - This evaluation was initiated as part of the corrective action for LER 87-45.

2. The NMP2 Training Department has developed a lesson plan specifically reviewing the operation of the HVR to minimize future challenges to the SBGTS. Five of six shifts have been trained, the last shift will be trained by 9/25/87.



LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

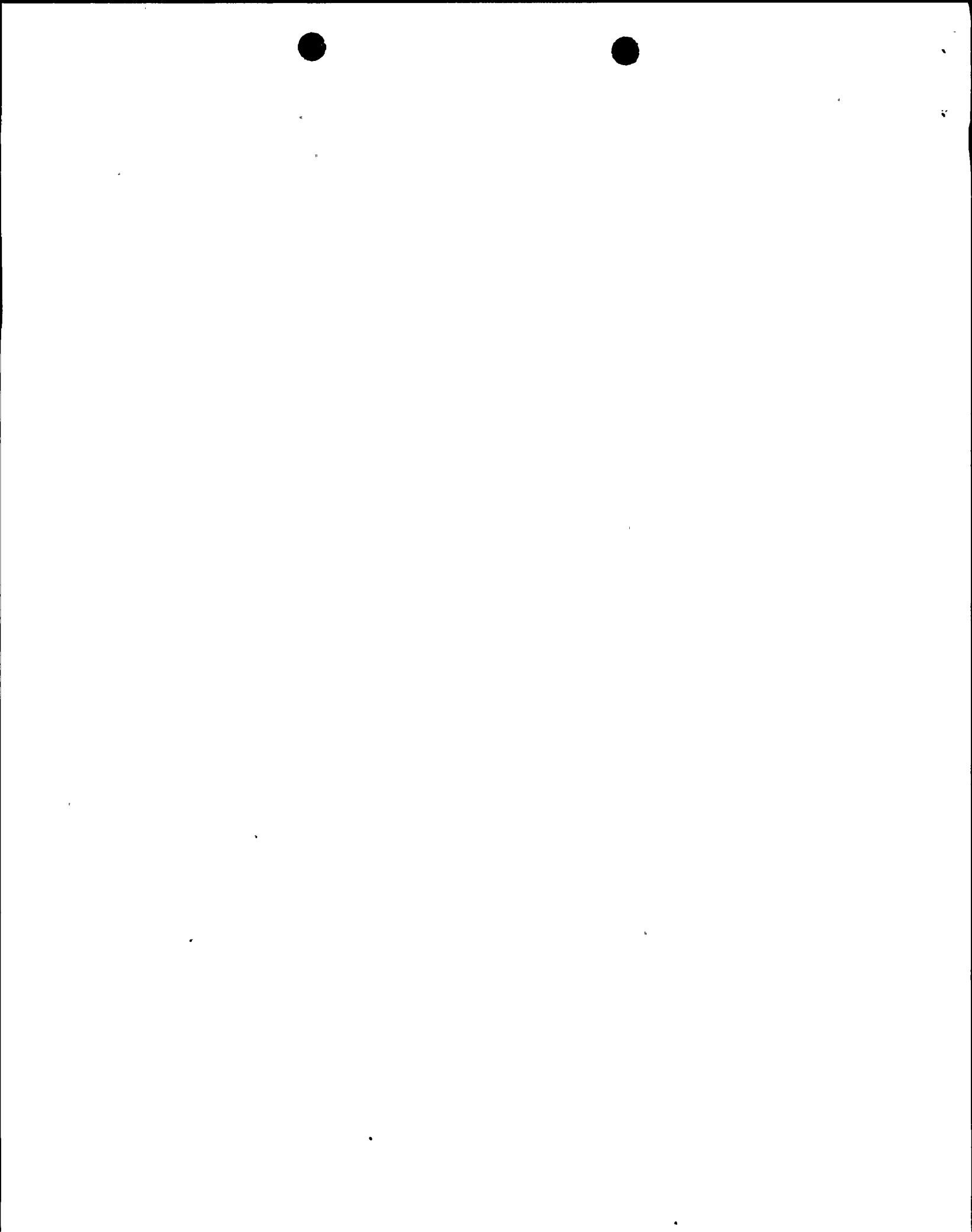
3. Investigation will continue to determine the reason why fan 2HVR-FN5A stopped during the second event. Corrective actions will be taken accordingly and a supplement to this LER submitted by November 30, 1987. The fan has been restarted and no further problems have been noted.

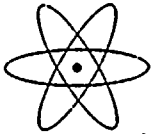
V. ADDITIONAL INFORMATION

Identification of Components Referred to in this LER

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

There have been four previous similar SBGTS initiations which have occurred while returning reactor building ventilation to normal operation. Detail of these similar events may be found in LER's 86-12, 87-36 and 87-45 for Nine Mile Point Unit 2.





NIAGARA MOHAWK POWER CORPORATION

NIAGARA  MOHAWK

301 PLAINFIELD ROAD
SYRACUSE, NY 13212

THOMAS E. LEMPGES
VICE PRESIDENT—NUCLEAR GENERATION

September 23, 1987

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

RE: Docket No. 50-410
LER 87-49

Gentlemen:

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

LER 87-49 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). However, actuation of an ESF, including the RPS, that resulted from and was part of the preplanned sequence during testing or reactor operation need not be reported."

10 CFR 50.72 reports were made at 7:20 and 10:30 on August 25, 1987.

This report was completed in the format designated in NUREG-1022, Supplement No. 2, dated September 1985.

Very truly yours,

Thomas E. Lempges
Vice President
Nuclear Generation

TEL/JMT/mjd

Attachments

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

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