

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8709100214 DOC. DATE: 87/09/04 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

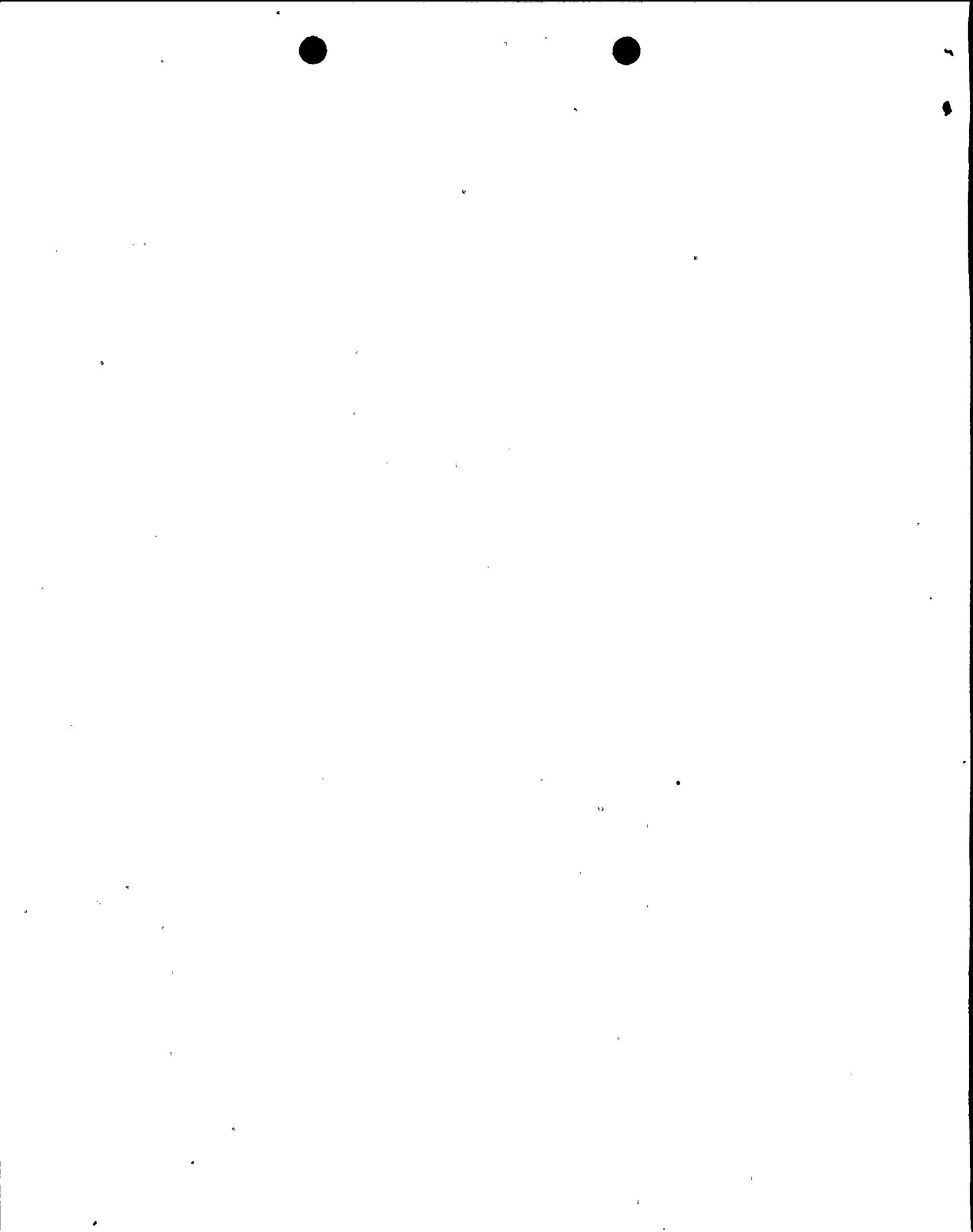
SUBJECT: LER 87-048-00: on 870809, Div 1 shutdown cooling (SDC)
 isolation occurred during performance of startup test. Caused
 by procedural deficiency. Isolation signal reset & SDC
 operation restored. Procedures to be revised. W/870904 ltr.

DISTRIBUTION CODE: IE22D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 6
 TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

NOTES: 21

05000410

	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
	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
	AEDD/DOA	1 1	AEDD/DSP/NAS	1 1
	AEDD/DSP/ROAB	2 2	AEDD/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/QAB	1 1
	NRR/DOEA/EAB	1 1	NRR/DREP/RAB	1 1
	NRR/DREP/RPB	2 2	NRR/PMAS/ILRB	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) 0 5 0 0 0 4 1 0	PAGE (3) 1 OF 04
--	---	----------------------------

TITLE (4)
Shutdown Cooling Isolation due to Procedural Deficiency

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	09	87	87	048	00	09	04	87	N/A		0 5 0 0 0 0
									N/A		0 5 0 0 0 0

OPERATING MODE (8) 3	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)									
POWER LEVEL (10) 000	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405(c)	<input checked="" type="checkbox"/> 60.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)						
	<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 60.38(c)(1)	<input type="checkbox"/> 60.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)						
	<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 60.38(c)(2)	<input type="checkbox"/> 60.73(a)(2)(vi)	OTHER (Specify in Abstract below and in Text NRC Form 368A)						
	<input type="checkbox"/> 20.405(a)(1)(iii)	<input type="checkbox"/> 60.73(a)(2)(i)	<input type="checkbox"/> 60.73(a)(2)(vii)(A)							
	<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 60.73(a)(2)(ii)	<input type="checkbox"/> 60.73(a)(2)(vii)(B)							
	<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 60.73(a)(2)(iii)	<input type="checkbox"/> 60.73(a)(2)(ix)							

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

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)									
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPD'S	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPD'S

SUPPLEMENTAL REPORT EXPECTED (14)			EXPECTED SUBMISSION DATE (15)
<input type="checkbox"/> YES (If yes complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO		

ABSTRACT (Limit to 1400 spaces or approximately fifteen single space typewritten lines) (16)

While in Mode 3 on August 9, 1987 at 2004 hours, a Division 1 Shutdown Cooling (SDC) isolation occurred during performance of a startup test. The "Shutdown from Outside the Main Control Room" startup test instructed the NMPC operators to transfer control of SDC from the Remote Shutdown System (RSS) panel to the control room, using the RSS operating procedure. Due to a procedural deficiency, the operators did not reset the Residual Heat Removal (RHR) system high pressure isolation signal prior to transferring controls. Subsequently, the outboard SDC suction valve isolated, the RHR Pump B tripped, and the SDC system isolated.

Immediate corrective actions were to reset the isolation signal, to transfer SDC controls to the control room, and to restore SDC operation by approximately 2011 hours. Normal SDC was lost for approximately seven minutes. Coolant temperature remained stable throughout the event. Further corrective actions are the revision of the RSS operating procedure and the training of Operations personnel.

8709100214 870904
PDR ADDCK 05000410
S PDR

IE22
/i



FACILITY NAME (1) Nine Mile Point Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 410	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		87	048	00	02	OF	04

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

I. DESCRIPTION OF EVENT

During performance of the "Shutdown from Outside the Main Control Room" startup test on August 9, 1987 at 2004 hours, a Division 1 Residual Heat Removal System (RHR)-Shutdown Cooling (SDC) isolation occurred. The unit was in Mode 3 (hot shutdown), with reactor pressure at 11 psig and coolant temperature at 240°F. Reactor cooldown operations were in progress in accordance with the cooldown demonstration instructions in the startup test. The RHR system Loop A was operating in suppression pool cooling mode, while the B loop was operating in the SDC mode. Refer to Attachment 1 for system configuration.

Per the return to normal section of the startup test, NMPC operators were instructed to transfer RHR system controls back to the main control room using the Remote Shutdown System (RSS) operating procedure. Due to a procedural deficiency, the operators did not reset the RHR system high pressure isolation signal in the control room prior to placing the transfer switches to "normal". When control of SDC (RHR loop B) was transferred, the outboard SDC suction isolation valve (2RHS*MOV113) closed. Subsequently, the RHR Loop B pump automatically tripped as a result of the suction valve isolation. All other Division 1 SDC valves were closed prior to receipt of the isolation signal. In addition, no inoperable systems or components contributed to this occurrence.

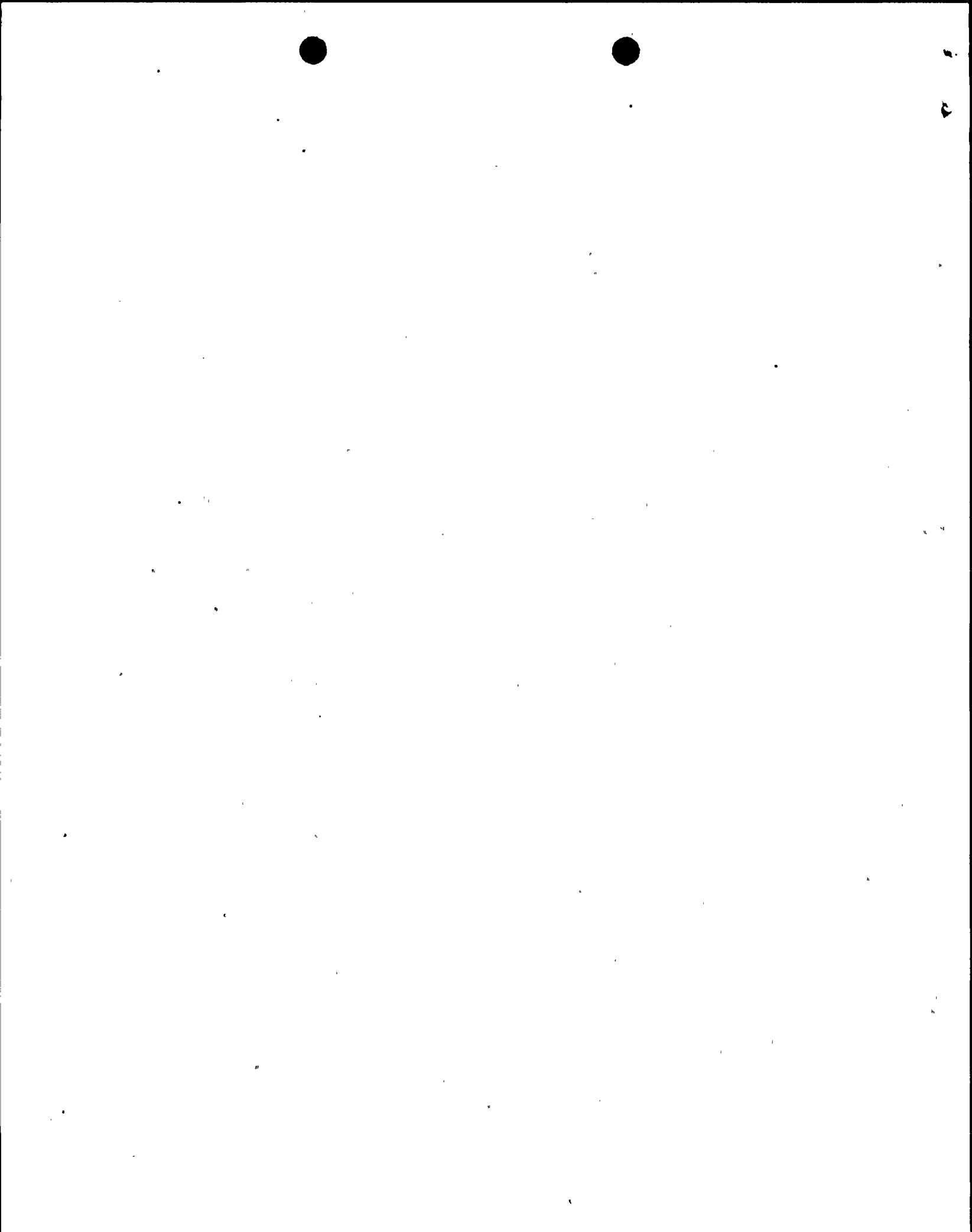
Immediate corrective actions were to reset the Nuclear Steam Supply Shutoff System (NS⁴) isolation signal (i.e. RHR system high pressure), to transfer SDC controls to the control room, and to restore SDC operation. The outboard SDC suction valve was re-opened and the tripped pump restarted at approximately 2011 hours. Normal SDC operation was lost for approximately seven minutes. However, coolant temperature remained stable throughout the event.

II. CAUSE OF EVENT

The cause of the event is procedural deficiency. The NMPC operators adhered to the approved procedure when transferring controls. However, the RSS operating procedure did not address resetting the NS⁴ isolation signal prior to transferring RHR system controls to the main control room.

III. ANALYSIS OF EVENT

An NS⁴ RHR system actuation is an unnecessary challenge to an Engineered Safety Feature. Yet, there were no adverse safety consequences for this event. Normal SDC capability was lost for approximately seven minutes. However, the reactor water cleanup system was operating and available to remove any existing heat loads via its heat exchangers. Coolant temperature remained stable throughout the event.



FACILITY NAME (1) Nine Mile Point Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 410	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
		87	048	00	03	OF 04

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

During the event, the unit was undergoing power ascension testing at approximately 5 to 20% power levels. At 1239 hours that day, the reactor was scrammed from 18% power level as part of the hot shutdown/cooldown demonstration portion of the startup test. Existing decay heat loads were not as large as for a reactor scram from 100% power level. For an operating plant in cold shutdown or refuel modes, a loss of normal decay heat removal capability is a design basis condition mitigated by alternate decay heat removal methods described in FSAR Section 15.2.9, "Failure of RHR Shutdown Cooling", and in normal and emergency operating procedures.

IV. CORRECTIVE ACTION

Immediate corrective actions were to reset the NS⁴ isolation signal, to transfer SDC controls to the control room, and to restore SDC operation. The outboard SDC suction valve was re-opened and the tripped pump restarted by approximately 2011 hours. Further corrective actions are as follows:

1. The RSS operating procedure was revised to include resetting the NS⁴ isolation signal in the control room prior to transferring controls from the remote shutdown panel to the main control room panel.
2. The information in the LER will be discussed with operations personnel via training to alert them of the possibility of aligning safety systems for operation without resetting system isolation signals.

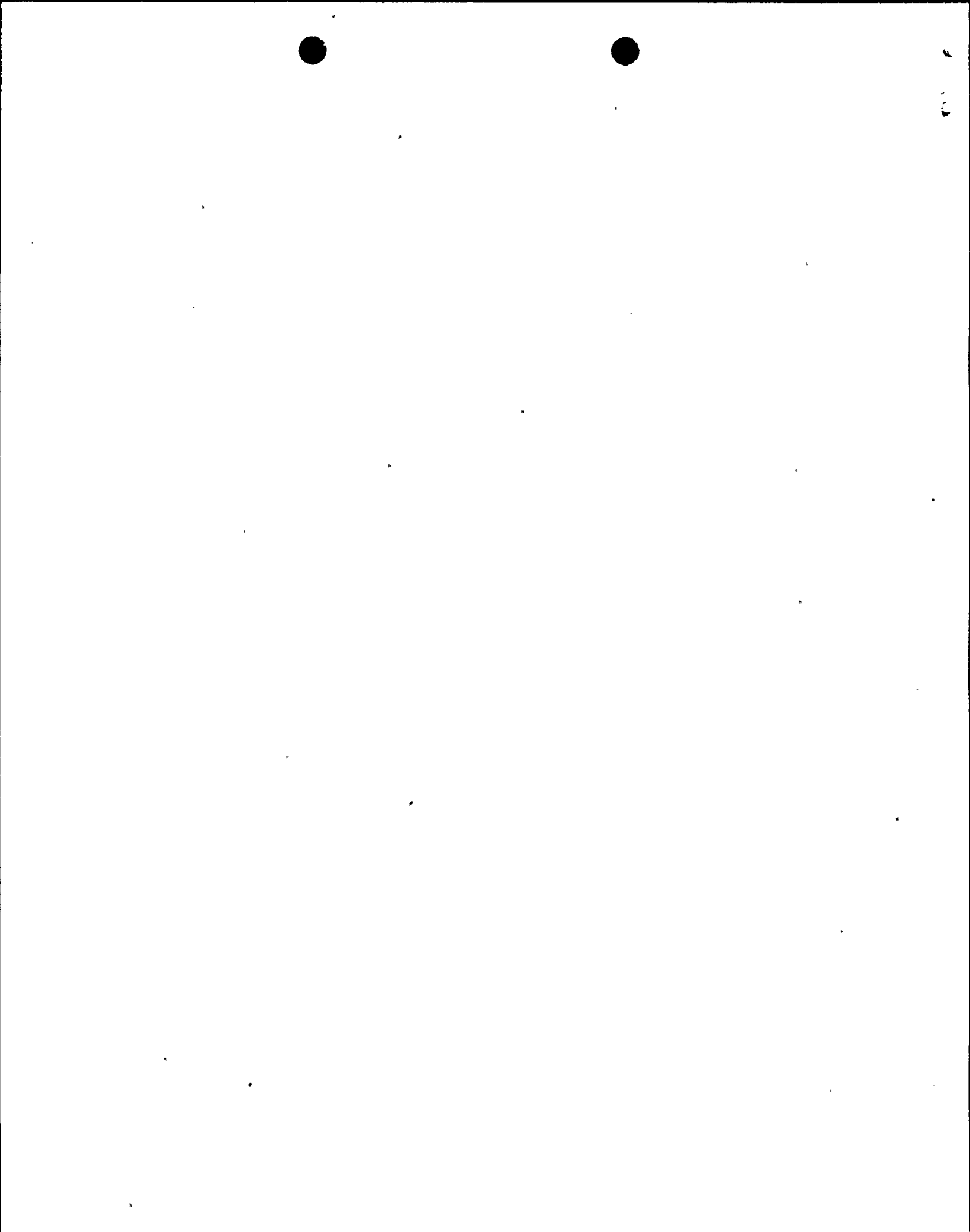
V. ADDITIONAL INFORMATION

A. Components referred to in this LER

Component	IEEE 803 EIIS Funct	IEEE 805 System ID
Residual Heat Removal System (RHR)	N/A	BO
Shutdown Cooling System (SDC)	N/A	BO
Suppression Pool Cooling System	N/A	BO
Reactor Water Cleanup System (RWCU)	N/A	CE
Nuclear Steam Supply Shutoff System (NS ⁴)	N/A	JM
Remote Shutdown System (RSS)	N/A	N/A
Pump	P	BO
Isolation Valve	ISV	JM

B. Previous similar event - LER 87-23 describes an RHR system isolation due to procedural deficiency. The event was the result of valving out a pressure transmitter. However, that event pertained to Instrument and Controls (I&C) personnel and not Operations personnel. Therefore, corrective actions for the LER 87-23 event were not related to duties of Operations personnel.

C. Failed components - none



FACILITY NAME (1) Nine Mile Point Unit 2	DOCKET NUMBER (2) 0 5 0 0 0 410	LER NUMBER (6)			PAGE (3)	
		YEAR 87	SEQUENTIAL NUMBER 048	REVISION NUMBER 00	04	OF 04

TEXT (If more space is required, use additional NRC Form 365A's) (17)

ATTACHMENT 1

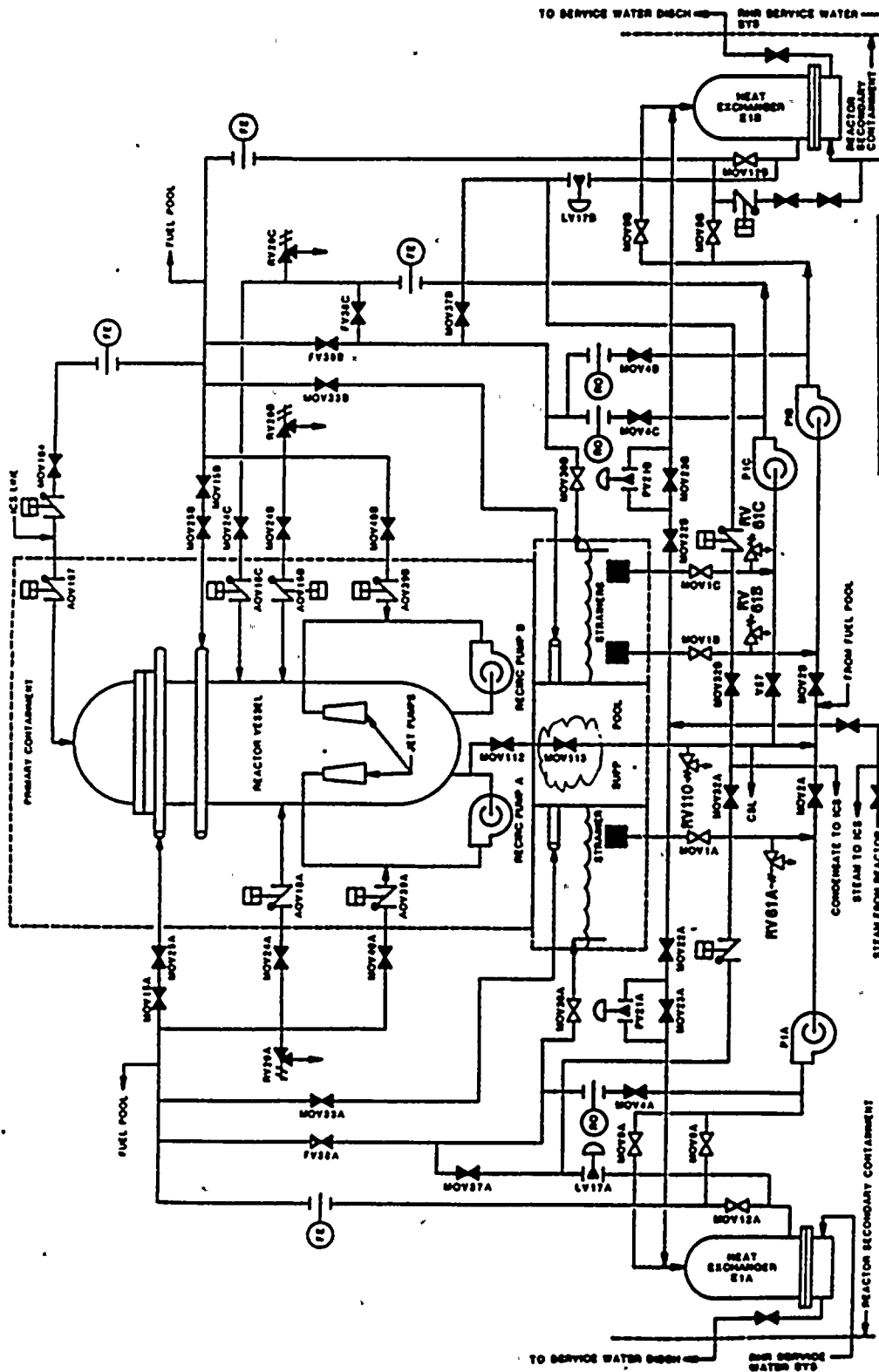
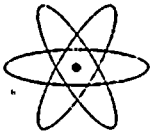


Figure 1 - Rev. 2
Title: RESIDUAL HEAT REMOVAL SYSTEM





NIAGARA MOHAWK POWER CORPORATION

NIAGARA  MOHAWK

301 PLAINFIELD ROAD
SYRACUSE, NY 13212

THOMAS E. LEMPGES
VICE PRESIDENT—NUCLEAR GENERATION

September 4, 1987

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

RE: Docket No. 50-410
LER 87-48

Gentlemen:

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

LER 87-48 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."

A 10 CFR 50.72 report was made at 2122 hours on August 9, 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/PB/mjd

Attachments

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

LE22
11

