

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8707140030 DOC. DATE: 87/07/07 NOTARIZED: NO DOCKET #
 FACIL: 50-361 San Onofre Nuclear Station, Unit 2, Southern Californ 05000361
 AUTH. NAME AUTHOR AFFILIATION
 MORGAN, H. E. Southern California Edison Co.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 87-007-00: on 870607, containment purge isolation sys
 spurious actuation occurred. Caused by electrical noise
 spikes which affected containment area radiation monitor
 2RT-7856. Evaluation of event underway. W/870707 ltr.

DISTRIBUTION CODE: IE22D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 3
 TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

NOTES: ELD Chandler 1cy.

05000361

	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL		RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
	PD5 LA	1 1		PD5 PD	1 1
	ROOD, H	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/QAB	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		REG FILE 02	1 1
	RES DEPY GI	1 1		RES TELFORD, J	1 1
	RES/DE/EIB	1 1		RGN5 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
NOTES:		1 1			

TOTAL NUMBER OF COPIES REQUIRED: LTTR 45 ENCL 43

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) SAN ONOFRE NUCLEAR GENERATING STATION, UNIT 2										DOCKET NUMBER (2) 0 5 0 0 0 3 6 1				PAGE (3) 1 OF 0 2		
TITLE (4) CONTAINMENT PURGE ISOLATION SYSTEM (CPIS) SPURIOUS ACTUATIONS																
EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)							
MONTH	DAY	YEAR	YEAR	SEQ. NUMBER	REV. NUMBER	MONTH	DAY	YEAR	FACILITY NAMES				DOCKET NUMBER (5)			
0 6	0 7	8 7	8 7	0 0 7	0 0 0	7 0	7 8	7					0 5 0 0 0			
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)														
1		20.402(b)				20.405(c)				<input checked="" type="checkbox"/> 50.73(a)(2)(iv)				73.71(b)		
POWER LEVEL (10)		20.405(a)(1)(i)				50.36(c)(1)				50.73(a)(2)(v)				73.71(c)		
1 0 0		20.405(a)(1)(ii)				50.36(c)(2)				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)(i)				50.73(a)(2)(viii)(A)								
20.405(a)(1)(iv)				50.73(a)(2)(ii)				50.73(a)(2)(viii)(B)								
20.405(a)(1)(v)				50.73(a)(2)(iii)				50.73(a)(2)(x)								
LICENSEE CONTACT FOR THIS LER (12)																
NAME H. E. MORGAN, STATION MANAGER										TELEPHONE NUMBER AREA CODE 7 1 4 3 6 8 - 6 2 4 1						
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDs		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDs						
SUPPLEMENTAL REPORT EXPECTED (14)												EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR
<input checked="" type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)												NO		1 1	0 6	8 7

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

With Unit 2 in Mode 1 at 100% power, four spurious actuations of the San Onofre Unit 2 Train "A" Containment Purge Isolation System (CPIS) occurred between June 7, 1987 and June 9, 1987. These actuations were initiated by electrical noise spikes which affected Containment Area Radiation Monitor 2RT-7856. These noise spikes are most frequently generated by operation of Train "A" High Pressure Safety Injection (HPSI) system components.

The mini-purge isolation valves which were in the open position, closed in accordance with design requirements. In all cases, containment radiation levels were below the CPIS actuation set point.

Cabling for the Train "A" CPIS monitor 2RT-7856 is routed near cable trays containing control and power cables associated with the Train "A" HPSI pump P-017, the Train "A" cabling for HPSI swing pump P-018 and the Train "A" HPSI valves. Corrective measures previously taken, included replacing the detector and ensuring proper grounding of the detector and associated cabling. SCE is evaluating the feasibility of adding a time delay circuit so the monitor would filter out the brief spurious signals. Should an additional time delay not be feasible, instrumented testing of CPIS and Train "A" HPSI components will be performed in an attempt to identify the location of interaction(s) between CPIS and HPSI, and provide a basis for corrective action.

SCE has reviewed the safety aspects of such actuations and considers them as having no safety consequence.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

SAN ONOFRE NUCLEAR GENERATION STATION	DOCKET NUMBER	LER NUMBER	PAGE
UNIT 2	05000361	87-007-00	2 OF 2

With Unit 2 in Mode 1 at 100% power, four spurious actuations of the San Onofre Unit 2 Train "A" Containment Purge Isolation System (CPIS) (EIIS System Code VA) occurred between June 7, 1987 and July 1, 1987. These actuations were initiated by electrical noise spikes which affected Containment Area Radiation Monitor (EIIS Component Code RIT) 2RT-7856, and are identified in the table below.

<u>Date</u>	<u>(Time)</u>	<u>Equipment Actuated</u>	<u>Cause</u>
7/1/87	1223	None	Train "A" HPSI Pump Started
6/9/87	2048	Mini-Purge Valves	Train "A" HPSI Valve 2HV-9334 Operated
6/8/87	0555	None	Train "A" HPSI Valve 2HV-9324 Operated
6/7/87	0430	None	Train "A" HPSI Pump Started

The mini-purge isolation valves which were in the open position on June 9, 1987, closed in accordance with design requirements. No other equipment was affected. In all cases, containment radiation levels were below the CPIS actuation set point.

The principal cause of these events has been determined to be actuation of HPSI Train "A" components. Cabling for the Train "A" CPIS monitor 2RT-7856 is routed near cable trays containing control and power cables associated with the Train "A" HPSI pump P-017, the Train "A" cabling for HPSI swing pump P-018 and the Train "A" HPSI valves.

Corrective measures previously taken, included replacing the detector and ensuring proper grounding of the detector and associated cabling. SCE is evaluating the feasibility of adding a time delay circuit so the monitor would filter out the brief spurious signals. In the event that an additional time delay is not feasible, instrumented testing of CPIS and Train "A" HPSI components and their circuitry, known to cause spurious actuations, will be performed in an attempt to identify the location of interaction(s) between CPIS and HPSI, and provide a basis for corrective action.

Similar CPIS actuations involving CPIS monitor 2RT-7856 have occurred previously and were most recently reported in LER 86-35 (Docket 50-361). SCE has reviewed the safety aspects of such actuations and considers them as having no safety consequence.

Southern California Edison Company

SAN ONOFRE NUCLEAR GENERATING STATION

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July 7, 1987

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Subject: Docket No. 50-361
30-Day Report
Licensee Event Report No. 87-007
San Onofre Nuclear Generating Station, Unit 2

Pursuant to 10 CFR 50.73(a)(2)(iv) this submittal provides the required 30-day written Licensee Event Report (LER) for four occurrences involving spurious actuations of the Containment Purge Isolation System. Neither the health and safety of plant personnel nor the health and safety of the public was affected by this occurrence.

If you require any additional information, please so advise.

Sincerely,

H E Morgan

RCDouglas
Enclosure: LER No. 87-007

cc: F. R. Huey (USNRC Senior Resident Inspector, Units 1, 2 and 3)
J. B. Martin (Regional Administrator, USNRC Region V)
Institute of Nuclear Power Operations (INPO)

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