

ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:8801130153 DOC.DATE: 88/01/05 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 87-028-00:on 871206,containment purge isolation sys
 actuation due to high impedance.

W/8 ltr.

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 TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

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	AEOD/DSP/ROAB		2	2		AEOD/DSP/TPAB		1	1	
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	RES TELFORD,J		1	1		RES/DE/EIB		1	1	
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EXTERNAL:	EG&G GROH,M		5	5		FORD BLDG HOY,A		1	1	
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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 4	
TITLE (4) CONTAINMENT PURGE ISOLATION SYSTEM (CPIS) ACTUATION DUE TO HIGH IMPEDANCE															
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(S)		
1 2	0 6	8 7	8 7	0 2 8	0 0	0 1	0 5	8 8					0 5 0 0 0		
OPERATING MODE (9) 3		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)													
POWER LEVEL (10) 0 0 0		20.402(b)				20.405(c)				<input checked="" type="checkbox"/> 50.73(a)(2)(iv)		73.71(b)			
		20.405(a)(1)(i)				50.36(c)(1)				<input type="checkbox"/> 50.73(a)(2)(v)		73.71(c)			
		20.405(a)(1)(ii)				50.36(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)(i)				<input type="checkbox"/> 50.73(a)(2)(viii)(A)					
		20.405(a)(1)(iv)				50.73(a)(2)(ii)				<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)(x)					
LICENSEE CONTACT FOR THIS LER (12)															
NAME H. E. MORGAN, STATION MANAGER										TELEPHONE NUMBER AREA CODE 7 1 4 3 6 8 - 1 6 2 4 1					
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)															
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC					
SUPPLEMENTAL REPORT EXPECTED (14)										EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR	
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)										<input checked="" type="checkbox"/> NO					

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

At 0019 on 12/06/87, with Unit 2 in Mode 3, a spurious actuation of Train "B" CPIS was initiated from Containment Area Radiation Monitor 2RT-7857. The containment purge was not in operation at the time of the actuation. At 0055 on 12/06/87, following verification that containment radiation levels were below the actuation setpoint, CPIS was reset.

Investigation into the cause of the actuation determined that a poor electrical connection existed between the 2RT-7857 monitor module and its cable connector which resulted in a high impedance condition. The poor connection was caused by a buildup of deposits on the connector pins. Such connector pins have not been cleaned on a periodic basis.

The 18-month calibration for those radiation monitors which actuate equipment and have similar module-to-cable connectors will be revised to require the cleaning of connector pins.

There was no safety significance to this event since all CPIS components operated in accordance with design.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

SAN ONOFRE NUCLEAR GENERATION STATION UNIT 2	DOCKET NUMBER 05000361	LER NUMBER 87-028-00	PAGE 2 OF 4
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Plant: San Onofre Nuclear Generating Station (SONGS)

Unit: 2

Reactor Vendor: Combustion Engineering

Event Date: 12-06-87

Time: 0019

A. PLANT CONDITIONS AT TIME OF THE EVENT:

Mode: 3, Hot Standby

B. BACKGROUND INFORMATION:

There are two independent Containment Purge Isolation System (CPIS) (EIIS System Code VA) trains. Each train is comprised of a containment airborne radiation monitor (EIIS Component Code RIT), an area radiation monitor and a set of purge isolation valves (EIIS Component Code ISV). Each train is actuated by either a remote manual push button, or by one of the monitors sensing high radiation, monitor failure or loss of power.

C. DESCRIPTION OF THE EVENT:

1. Event:

At 0019 on 12/06/87, with Unit 2 in Mode 3, a spurious actuation of Train "B" CPIS was initiated by Containment Area Radiation Monitor 2RT-7857. The containment purge was not in operation at the time of the actuation. At 0055 on 12/06/87, following verification that containment radiation levels were below the actuation setpoint, CPIS was reset.

At 0330 on 12/06/87, 2RT-7857 was declared inoperable because the monitor continued to display an irregular signal output (noise) which had begun with the 0019 actuation.

At approximately 2030 on 12/07/87, following reinstallation of the 2RT-7857 module assembly during troubleshooting, the previously observed irregular signal was no longer present.

At 1040 on 12/23/87, 2RT-7857 was returned to service after further observation, evaluation, and satisfactory completion of a channel functional test.

2. Inoperable Structures, Systems or Components that Contributed to the Event:

None.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

SAN ONOFRE NUCLEAR GENERATION STATION UNIT 2	DOCKET NUMBER 05000361	LER NUMBER 87-028-00	PAGE 3 OF 4
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3. Sequence of Events:

DATE	TIME	ACTION
12/06/87	0019	CPIS Train "B" actuated from radiation monitor 2RT-7857.
12/06/87	0055	CPIS Train "B" reset.
12/06/87	0330	2RT-7857 declared inoperable.
12/07/87	2030	2RT-7857 module assembly reinstalled during troubleshooting activities, previously observed irregular signal no longer present.
12/23/87	1040	2RT-7857 returned to service.

4. Method of Discovery:

Control Room annunciation of the CPIS actuation.

5. Personnel Actions and Analysis of Actions:

The operators responded properly to the CPIS actuation by verifying proper system operation and verifying that radiation levels inside containment were normal prior to resetting CPIS.

6. Safety System Responses:

All CPIS components functioned as designed.

D. CAUSE OF THE EVENT:

1. Immediate Cause:

The actuation was caused by a noise spike in the CPIS actuation circuitry.

2. Root Cause:

Investigation into the cause of the actuation determined that a poor electrical connection existed between the 2RT-7857 monitor module and its cable connector which resulted in a high impedance condition. The poor connection was caused by a buildup of deposits on the connector pins. Such connector pins have not been cleaned on a periodic basis.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

SAN ONOFRE NUCLEAR GENERATION STATION UNIT 2	DOCKET NUMBER 05000361	LER NUMBER 87-028-00	PAGE 4 OF 4
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E. CORRECTIVE ACTIONS:

1. Corrective Actions Taken:

The high impedance was eliminated when the 2RT-7857 module assembly connector pins were separated and reattached during troubleshooting. Since this action was taken, the previously observed electronic noise has not recurred.

2. Planned Corrective Actions:

The 18-month calibration for those radiation monitors which actuate equipment and have similar module-to-cable connectors will be revised to require the cleaning of connector pins.

F. SAFETY SIGNIFICANCE OF THE EVENT:

There was no safety significance to this event since all CPIS components operated as designed.

G. ADDITIONAL INFORMATION:

1. Component Failure Information:

Not applicable.

2. Previous LERs on Similar Events:

There has been no previous occurrence of a radiation monitor actuation caused by a buildup of deposits on the module-to-cable connector pins.

Southern California Edison Company

SAN ONOFRE NUCLEAR GENERATING STATION

P. O. BOX 128

SAN CLEMENTE, CALIFORNIA 92672

H. E. MORGAN
STATION MANAGER

TELEPHONE
(714) 368-6241

January 5, 1988

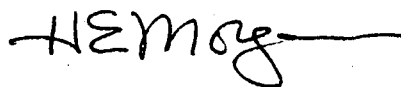
U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Subject: Docket No. 50-361
30-Day Report
Licensee Event Report No. 87-028
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 an occurrence involving an actuation 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,



Enclosure: LER No. 87-028

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)

IE22
1/1