

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) SAN ONOFRE NUCLEAR GENERATING STATION, UNIT 3										DOCKET NUMBER (2) 0 5 0 0 0 3 6 2				PAGE (3) 1 OF 0 2		
TITLE (4) REACTOR PLANT PROTECTION SYSTEM SURVEILLANCE TESTING																
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)			
0 2	2 6	8 4	8 4	0 0 6	0 0 0	3	2 8	8 4					0 5 0 0 0			
OPERATING MODE (9) 5		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)				50.73(a)(2)(iv)				73.71(b)		
		20.405(a)(1)(i)				50.36(c)(1)				50.73(a)(2)(v)				73.71(c)		
		20.405(a)(1)(ii)				50.36(c)(2)				50.73(a)(2)(vii)				<input checked="" type="checkbox"/> 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)				Informational Report		
		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 J. G. HAYNES, STATION MANAGER										TELEPHONE NUMBER AREA CODE 7 1 4 4 9 2 - 7 7 0 0						
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)

This submittal provides an informational Licensee Event Report for an occurrence involving Reactor Plant Protection System (PPS) testing. On February 26, 1984, with Unit 3 in a Mode 5 maintenance outage, the 31-day PPS Surveillance was in progress. During this surveillance, it was observed that the Reactor Trip Breaker (RTB) #8 undervoltage device did not actuate. The automatic shunt trip device, the manual undervoltage and shunt trip devices from the Control Room and the local pushbuttons were not affected and were capable of opening RTB #8. Investigation revealed metal filings between two terminals of the Control Room pushbutton. These filings produced a short circuit between the terminals preventing the undervoltage device for RTB #8 from actuating on a trip signal from the PPS. Even though the pushbutton was shorted, the complete trip would have occurred from either an automatic or manually initiated signal. This was an isolated occurrence and no further corrective action is planned.

Neither the health and safety of plant personnel nor the public were affected by this occurrence.

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LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)				PAGE (3)		
		YEAR	SEQ. NUMBER	REV. NUMBER				
SAN ONOFRE NUCLEAR GENERATING STATION, UNIT 3	0 5 0 0 0 3 6 2	8 4	- 0 0 6	- 0 0	0 2	OF	0 2	

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

This submittal provides an informational Licensee Event Report for an occurrence involving Reactor Plant Protection System (PPS) (EIIS System Code JC) testing. On February 26, 1984, on the graveyard shift with Unit 3 in a Mode 5 maintenance outage, the 31-day PPS surveillance in accordance with Procedure S023-II-1.1, "Surveillance Requirement Reactor Protection System Channel Functional Test (31-Day Interval)" was in progress. During performance of step 6.9.27 of this procedure, which initiates a trip signal to Reactor Trip Breakers (RTB's) (EIIS Component Code 52) #4 and #8, it was observed that the RTB #8 undervoltage device did not actuate. However, RTB #4 did actuate on its undervoltage device.

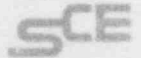
An investigation was commenced on February 27, 1984 with the Unit in Mode 4 to determine why RTB #8's undervoltage trip device did not actuate on a signal from the PPS. Independent measurement and verification of RTB #8's undervoltage trip device using Procedure S023-II-11.161, "Surveillance Requirement Reactor Breakers Undervoltage and Shunt Trip Device Circuit Test (Eighteen Month Interval)" was conducted. All test results were satisfactory. The PPS K-4 relay, which actuates the RTB signal, was examined and found to be functioning properly.

Further troubleshooting of the control circuitry for RTB #8's undervoltage device on February 28, 1984, resulted in the discovery of metal filings between terminals 2 and 5 of the Control Room pushbutton for RTB's #4 and #8. These filings produced a short circuit between the terminals, and therefore around the K-4 relay contact which actuates RTB #8's undervoltage trip device. This prevented the undervoltage device for RTB #8 from functioning on a trip signal from the PPS. The automatic and manual features of the undervoltage and shunt trip devices for RTB #4 were not affected by the filings. Even though the pushbutton was shorted, the complete trip would have occurred from either an automatic or manually initiated signal.

It is believed that the filings fell into the enclosure around the pushbutton and eventually lodged across the terminals. However, it is not possible to determine the source of the filings or the time when they were first present. The filings were removed from the terminals. Procedure S023-II-1.1 was subsequently performed with satisfactory results. The remaining Unit 3 pushbuttons were inspected and no filings or other abnormal conditions were found. Subsequently, the Unit 2 pushbuttons were checked with similar results. In addition the cabinets on both Units 2 and 3 were inspected and no other filings were found.

This was an isolated occurrence and no further corrective actions are planned. Neither the health and safety of plant personnel nor the public were affected by this occurrence. Additionally, RTB #8's automatic trip function using the shunt trip device was not affected nor was the manual undervoltage and shunt trip device actuation capability from the Control Room and local pushbuttons.

Southern California Edison Company



SAN ONOFRE NUCLEAR GENERATING STATION

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J. G. HAYNES
STATION MANAGER

March 28, 1984

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

Subject: Docket No. 50-362
Informational Report
Licensee Event Report No. 84-006
San Onofre Nuclear Generating Station, Unit 3

This submittal provides an informational Licensee Event Report (LER) for an occurrence involving the Plant Protection System (PPS). The health and safety of plant personnel or the public were not affected by these occurrences.

If you require additional information, please so advise.

Sincerely,

Enclosure: LER No. 84-006

cc: A. E. Chaffee (USNRC Resident Inspector, Units 1, 2 and 3)
J. P. Stewart (USNRC Resident Inspector, Units 2 and 3)

U.S. Nuclear Regulatory Commission
J. B. Martin, Regional Administrator

Institute of Nuclear Power Operations (INPO)

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