NRC Form 366
(9/83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
SAN ONOFRE NUCLEAR GENERATING STATION, UNIT 3	0 5 0 0 0 3 6 2	1 OF 0 2

TITLE (4)

REACTOR TRIP BREAKER SERIAL NO. 29 UNDERVOLTAGE DEVICE ANOMALY

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 4	2 8	8 4	8 4	0 1 6	0 0	0 5	2 3	8 4		0 5 0 0 0
										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)		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)	X	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)		Informational Report	
		20.405(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(x)			

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
	AREA CODE
J. G. HAYNES, STATION MANAGER	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 NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

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

This report is submitted to provide information concerning operation of Reactor Trip Breakers (RTB's) on their undervoltage (UV) trip devices. (As in the past, the breakers continue to function acceptably using the shunt trip device.) Although this occurrence was determined to be not reportable under the Unit 3 Technical Specifications or 10 CFR 50.73, we are submitting this report to inform you of the circumstances involved and corrective actions taken.

On April 28, 1984, with Unit 3 in Mode 1 at 100% power and surveillance testing in progress, the UV trip device for RTB Serial No. 256A4002-656-29 exhibited a procedurally unacceptable response time. The breaker was left in the open position pending investigation.

The breaker's measured trip shaft torque exceeded the acceptance criterion. Following maintenance, the trip shaft torque was found to be within the acceptance criterion. Post-maintenance surveillance of the breaker yielded acceptable UV response times and the breaker was returned to service in the cross-tie position (RTB #9) on May 8, 1984.

Public health and safety were not affected since the breaker was located in the nonsafety-related cross-tie position which does not open on a reactor trip. Furthermore, the breaker continues to function properly using the shunt trip device.

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 1 6	0 0	0 2 OF 0 2

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

This report is submitted to provide information concerning operation of Reactor Trip Breakers (RTB's) (EIIS Component Code 52) on their undervoltage (UV) trip devices. (As in the past, the breakers continue to function acceptably using the shunt trip device.) Although this occurrence was determined to be not reportable under the Unit 3 Technical Specifications or 10 CFR 50.73, we are submitting this report to inform you of the circumstances involved and corrective actions taken.

On April 28, 1984, with Unit 3 in Mode 1 at 100% power, surveillance testing in accordance with S023-II-11.161, "Reactor Breaker Undervoltage Response Time Testing," prior to the scheduled RTB maintenance, was in progress. During this surveillance, the UV trip device for RTB #9 (Serial No. 256A4002-656-29) exhibited a procedurally unacceptable response time. The response times (in order) were 178 msec, 56 msec and 42 msec. S023-II-11.161 contains an acceptance criterion of 82 msec, which was developed from baseline testing and consideration of the Combustion Engineering (CE) guideline of 100 msec. The shunt trip feature operated properly. No Action Statements were entered since the RTB was located in the nonsafety-related cross-tie position and does not open on a reactor trip. The breaker was left open, pending investigation of the timing anomaly.

The breaker was removed from its cubicle on May 8, 1984 and maintenance was performed in accordance with S023-I-4.66, "General Electric AK-2-25 Circuit Breaker Maintenance." During this maintenance, the as-found trip shaft torques were found to be 1.78 in-lbs, 1.70 in-lbs and 1.83 in-lbs. All values exceeded the acceptance criterion of 1.5 in-lbs and could have been responsible for the observed timing anomaly. All post-maintenance trip shaft torques were found to be acceptable and were 1.27 in-lbs, 1.28 in-lbs and 1.17 in-lbs, respectively. Post-maintenance surveillance in accordance with S023-II-11.161 yielded UV response times of 37 msec, 35 msec and 35 msec. Based on this successful post-maintenance surveillance, the RTB was returned to service in the nonsafety-related cross-tie position on May 8, 1984. Future performance of the breaker will be closely monitored.

Public health and safety were not affected since the breaker was located in the nonsafety-related cross-tie position which does not open on a reactor trip. Furthermore, the breaker continues to function properly using the shunt trip device.

Southern California Edison Company

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May 23, 1984

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

Subject: Docket No. 50-362
Informational Report
Licensee Event Report No. 84-016
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 this occurrence.

If you require any additional information, please so advise.

Sincerely,

J. G. Haynes

Enclosure: LER 84-016

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

J. B. Martin (Regional Administrator, USNRC Region V)

Institute of Nuclear Power Operations (INPO)

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