

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) SAN ONOFRE NUCLEAR GENERATING STATION, UNIT 1	DOCKET NUMBER (2) 0 5 0 0 0 2 0 6	PAGE (3) 1 OF 0 1
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TITLE (4) UNIT TRIP - LOSS OF OFFSITE POWER
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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)	
11	21	85	85	017	00	12	19	85		0 5 0 0 0 1	
										0 5 0 0 0 1	

OPERATING MODE (9) 1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)																			
	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)					50.73(a)(2)(v)					73.71(c)				
	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 7 1 4 3 6 8 - 6 4 2 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 checked="" type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE) <input type="checkbox"/> NO										02	07	86

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

At 0450 on 11/21/85, with the unit at approximately 60% power, the reactor was manually tripped in response to a loss of power to 120V AC Vital Bus #4 as required by station procedures. During the recovery phase and stabilization of the plant, a feedwater system water hammer was experienced on the 'B' loop feedwater line which resulted in damage to the pipe supports and steam leakage from the 'B' loop main feedwater regulating valve bypass line check valve, outside containment. The unit was brought to Mode 5 for inspection and repairs at 1508, and entered the refueling outage which had been scheduled to start on 11/29/85.

Vital Bus #4 lost power when the Station Reserve Auxiliary Transformer was tripped by differential relay protection circuitry. The unit was disconnected from its normal source of offsite power for a period of four minutes after the generator output breaker was opened. During this period, the reactor was cooled by natural circulation. The diesel generators automatically started, however it was not necessary to utilize the diesels, since the 4KV busses were energized from the switchyard in accordance with procedures. Because of the de-energization of all 4KV busses, an unusual event was declared at 0506. Reverse flow through two main feedwater check valves appears to be the primary factor causing the water hammer.

Investigation into the cause and determination of corrective action is continuing in cooperation with the NRC Incident Investigation Team, and upon completion, additional information will be provided in a revision to this report.



*Southern California Edison Company*

SAN ONOFRE NUCLEAR GENERATING STATION

P. O. BOX 128

SAN CLEMENTE, CALIFORNIA 92672

December 19, 1985

H. E. MORGAN  
STATION MANAGER

TELEPHONE  
(714) 368-6241

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

Subject: Docket No. 50-206  
30-Day Report  
Licensee Event Report No. 85-017  
San Onofre Nuclear Generating Station, Unit 1

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 the Reactor Protection System. Neither the health and safety of plant personnel nor the health and safety of the public was affected by this event.

If you require any additional information, please so advise.

Sincerely,

Enclosure: LER No. 85-017

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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