

## 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) ENGINEERED SAFETY FEATURES ACTUATION SYSTEM TRAIN 'A' 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(S)									
1	2	2	3	8	4	8	4	0	8	1	0	0	0	1	2	1	8	5	0 5 0 0 0 0 0 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)																				
N		20.402(b)				20.405(c)				X 50.73(a)(2)(iv)				73.71(b)								
POWER LEVEL (10)		0 0 0				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 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 NPD		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPD												
X	C	A	P	G	2	0	0	N														
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)

On 12/23/84 at 1245, with Unit 2 defueled and Auxiliary Feedwater System (AFWS) modification work in progress, both supply breakers to Auxiliary Relay Panel 2L-034 were opened. The documentation used to plan the AFWS modification work did not clearly indicate that simultaneous opening of both breakers to panel 2L-034 would result in loss of power to ESFAS Train 'A'. The loss of power caused all Train 'A' Engineered Safety Features Actuation System (ESFAS) signals controlled by 2L-034 to actuate. At the time of actuation, various ESFAS components were out of service due to a Train 'A' 4160V bus 2A04 outage. All operable components actuated by ESFAS signals functioned properly with the exception of Boric Acid Makeup (BAMU) Pump 2P-174, which tripped on overcurrent. All actuated ESFAS components were returned to their pre-actuation conditions and the supply breakers to 2L-034 were re-energized at 1330 on 12/23/84. The cause of the tripping of 2P-174 is still under investigation.

As corrective action, this event has been discussed with all personnel involved and the importance of identifying appropriate precautions during the clearance planning stage, has been emphasized. The significance of this event will be included in the annual operator requalification training.

There are no credible or alternative conditions under which this event could have been more severe, since the redundant BAMU pump is sufficient to supply the required makeup to the suction of the charging pumps.

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 2	0 5 0 0 0 0 3 6 1	8 4	- 0 8 1	- 0 0	0 2	OF 0 2

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

On December 23, 1984, at 1245, with Unit 2 defueled and Auxiliary Feedwater System (AFWS) (EIIS System Code BA) modification work in progress, both supply breakers (EIIS Component Code BKR) to Auxiliary Relay Panel 2L-034 were opened. The documentation used to plan the AFWS modification work did not clearly indicate that simultaneous opening of both breakers to panel 2L-034 would result in loss of power to ESFAS Train 'A'. The loss of power caused all Train 'A' Engineered Safety Features Actuation System (ESFAS) (EIIS System Code JE) signals controlled by 2L-034 to actuate. At the time of actuation, various ESFAS components were out of service due to a Train 'A' 4160V bus 2A04 outage.

All operable components actuated by the Safety Injection Actuation Signal (SIAS) (EIIS System Code BQ), Recirculation Actuation Signal (RAS) (EIIS System Code CA), Containment Isolation Actuation Signal (CIAS) (EIIS System Code JM), Containment Cooling Actuation Signal (CCAS) (EIIS System Code BK), Containment Spray Actuation Signal (CSAS) (EIIS System Code BE), Main Steam Isolation Signal (MSIS) (EIIS System Code JE), and Emergency Feedwater Actuation Signal (EFAS) (EIIS System Code BA) functioned properly with the exception of Boric Acid Makeup (BAMU) pump (EIIS Component Code P) 2P-174, which tripped on overcurrent. At 1250, BAMU Pump 2P-175 was secured and at 1300, Containment Isolation Valves (EIIS Component Code ISV) 2HV-7801 and 2HV-7802 were re-opened. No other components actuated due to the 2A04 outage. The supply breakers to Panel 2L-034 were re-energized at 1330 and ESFAS components were returned to their pre-actuation conditions. The cause of the tripping of 2P-174 on overcurrent is currently under investigation.

As corrective action, this event has been discussed with all individuals involved. During these discussions, power supply and relay drawings for clearances involved in the AFWS upgrade work were provided and the importance of identifying appropriate precautions during the clearance planning stage has been emphasized. Additionally, the significance of this event will be included as part of the annual operator requalification training.

There are no credible or alternative conditions under which this event could have been more severe, since the redundant BAMU pump is sufficient to supply the required makeup to the suction of the charging pumps.

*Southern California Edison Company*

SAN ONOFRE NUCLEAR GENERATING STATION

P.O. BOX 128

SAN CLEMENTE, CALIFORNIA 92672

**SCE**

J. G. HAYNES  
STATION MANAGER

TELEPHONE  
(714) 492-7700

January 21, 1985

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

Dear Sir:

Subject:           Docket No. 50-361  
                  30-Day Report  
                  Licensee Event Report No. 84-081  
                  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 actuation of the Engineered Safety Features Actuation System. Neither the health and safety of plant personnel nor the public were affected by this event.

If you require any additional information, please so advise.

Sincerely,

*J. G. Haynes*

Enclosure: LER No. 84-081

cc: F. R. Huey (USNRC Senior Resident Inspector, Units 1, 2, and 3)  
J. P. Stewart (USNRC Resident Inspector, Units 2 and 3)

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

Institute of Nuclear Power Operations (INPO)

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