

## 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 7				PAGE (3) 1 OF 0 2				
TITLE (4) CONTAINMENT PURGE ISOLATION SYSTEM 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)					
0 1	3 0	8 4	8 4	0 0 2	0 2	1	1	0 1					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)				<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 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)

On 1/30/84 at 0650, with Unit 2 in Mode 5 and a containment main purge in progress, the Containment Purge Isolation System (CPIS) was spuriously actuated as the result of an electrical noise spike on Train B Containment Airborne Monitor 2RT7807. However, no airborne activity was present above the 2RT7807 alarm setpoint. Containment main purge exhaust isolation valve 2HV9950 failed to close on the isolation signal because of a sheared motor pinion gear key. All other Train B CPIS actuated valves functioned properly.

On 1/31/84, 2/1/84, 2/2/84, and 2/3/84, with Unit 2 in Mode 5, the Containment Purge Isolation System was again spuriously actuated as the result of electrical noise spikes on 2RT7807. No systems or components malfunctioned during these events.

An investigation of the cause of the electrical spikes on RT7807 has been completed. The most probable entry point of the noise spikes is via the detector. An inspection will be made of the detector during the next outage of sufficient duration and, if necessary, repairs will be made to assure it is properly grounded.

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LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

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

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

On January 30, 1984 at 0650, with Unit 2 in Mode 5 and a containment main purge in progress, the Containment Purge Isolation System (EIIS Identifier VA) was spuriously actuated from an electrical noise spike on Train "B" Containment Airborne Monitor 2RT7807 (EIIS Identifier RT). Containment main purge inlet isolation valve 2HV9948 (EIIS Identifier ISV) shut upon receipt of the isolation signal. Since a containment purge exhaust valve did not shut, operators considered this event as a partial ESF actuation and did not make a report pursuant to 10 CFR 50.72(b)(2)(ii). It was later recognized that a single channel of a Containment Purge Isolation Signal completes the minimum actuation logic. Therefore, containment main purge exhaust valve 2HV9950 should have shut upon receipt of the Train "B" isolation signal. A report to the NRC pursuant to 10 CFR 50.72(b)(2)(ii) was subsequently made.

On January 31, February 1, 2, and 3, with Unit 2 in Mode 5, the Containment Purge Isolation System was again spuriously actuated as the result of electrical noise spikes on 2RT7807. No systems or components malfunctioned during these events. Each event was reported to the NRC pursuant to 10 CFR 50.72(b)(2)(ii).

The Containment Purge Isolation System has two independent and redundant trains. If an event occurred which required containment purge isolation, both Trains A and B would have actuated. The containment purge release path would have been isolated even if 2HV9950 failed to shut. Therefore, there are no credible circumstances under which this event would have been more severe.

The failure of 2HV9950 was due to a sheared motor pinion gear key. 2HV9950 was repaired and restored to service on January 31, 1984, at 1724. The failure of 2HV9950 was an isolated incident and no further corrective action is planned.

Investigation has determined that the most probable single cause of the actuations was ground current surges traveling to the monitors through the ground system. The ground current surges were probably caused by switching transients on heavy current equipment. These are normal and expected occurrences.

The noise spikes likely result from the ground current surges entering the detector. An inspection will be made of the detector during the next outage of sufficient duration and, if necessary, repairs will be made to assure it is properly grounded.