NRC FORM 366
(12-81)
10 CFR 50

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

APPROVED BY OMB
3150-0011

CONTROL BLOCK (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

01	LICENSEE CODE (2)	C A S O S 2	
	LICENSE NUMBER (3)	0 0 - 0 0 0 0 0 - 0 0	
	LICENSE TYPE (4)	4 1 1 1 1	
	CAT (5)		
CON'T 01	REPORT SOURCE (6)	L	
	DOCKET NUMBER (7)	0 5 0 0 0 3 6 1	
	EVENT DATE (8)	1 1 1 4 8 3	
	REPORT DATE (9)	1 2 1 5 8 3	

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 On 11/14/83, at 1901, with Unit 2 in Mode 1, the reactor was manually
03 tripped due to an unexpected pressurizer pressure and level decrease.
04 Our analysis determined that Tc had dropped below the limits of LCO
05 3.2.6 for 1-1/2 minutes, but this LCO was no longer applicable following
06 the trip. During plant stabilization, CST 2T-121's level dropped below
07 the limit of LCO 3.7.1.3 twice. The LCO was satisfied when tank level
08 was restored by 2000. Public health and safety were not affected.

09	SYSTEM CODE (11)	CAUSE CODE (12)	CAUSE SUBCODE (13)	COMPONENT CODE (14)	COMP. SUBCODE (15)	VALVE SUBCODE (16)
	R B	A	A	V A L V E X	E	D

(17) LER/RO REPORT NUMBER	EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
	8 3	—	1 5 1	/	0 3	L	—	0

ACTION TAKEN (18)	FUTURE ACTION (19)	EFFECT ON PLANT (20)	SHUTDOWN METHOD (21)	HOURS (22)	ATTACHMENT SUBMITTED (23)	NPRD-4 FORM SUB. (24)	PRIME COMP. SUPPLIER (25)	COMPONENT MANUFACTURER (26)
X	H	A	B	0 0 1 1	Y	N	N	T 0 2 0

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 An operator had erroneously opened emergency boration valve 2HV-9247
11 resulting in the addition of concentrated boric acid solution to the RCS
12 during automatic make-up. We believe this was a result of the
13 similarity in location and appearance between this switch and the
14 intended switch. See Attachment

15	FACILITY STATUS (28): E	% POWER (29): 0 8 0	OTHER STATUS (30): NA	METHOD OF DISCOVERY (31): A	DISCOVERY DESCRIPTION (32): Operator Observation
16	ACTIVITY RELEASED (33): Z	CONTENT OF RELEASE (34): Z	AMOUNT OF ACTIVITY (35): NA	LOCATION OF RELEASE (36): NA	
17	PERSONNEL EXPOSURES NUMBER (37): 0 0 0	TYPE (38): Z	DESCRIPTION (39): NA		
18	PERSONNEL INJURIES NUMBER (40): 0 0 0	DESCRIPTION (41): NA			
19	LOSS OF OR DAMAGE TO FACILITY TYPE (42): Z	DESCRIPTION (43): NA			
20	PUBLICITY ISSUED (44): N	DESCRIPTION (45): NA	NRC USE ONLY		

NAME OF PREPARER J. G. HAYNES
PHONE 714/492-7700

ATTACHMENT TO LER 83-151
SOUTHERN CALIFORNIA EDISON COMPANY
SAN ONOFRE NUCLEAR GENERATING STATION
UNIT NO. 2, DOCKET NO. 50-361

SUPPLEMENTAL INFORMATION FOR CAUSE DESCRIPTION AND CORRECTIVE ACTIONS

The operator responsible has been counseled by the Plant Superintendent. To prevent recurrence, the initial license training program includes simulator training which exposes operators to similar minor malfunctions during normal evolutions. This training will also be included in the requalification program. In addition, we are examining the Control Room panels to identify controls that have similar potentially confusing locations and appearances and are considering the necessity of providing some form of unique identification or other measures to prevent recurrence of events such as described in this report.

2168u

Southern California Edison Company
SAN ONOFRE NUCLEAR GENERATING STATION
P.O. BOX 128
SAN CLEMENTE, CALIFORNIA 92672

J. G. HAYNES
STATION MANAGER

TELEPHONE
(714) 492-7700

December 15, 1983

U. S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region V
1450 Maria Lane, Suite 210
Walnut Creek, California 94596-5368

Attention: Mr. J. B. Martin, Regional Administrator

Dear Sir:

Subject: Docket No. 50-361
30-Day Report
Licensee Event Report No. 83-151
San Onofre Nuclear Generating Station, Unit 2

Pursuant to Section 6.9.1.13.b of Appendix A, Technical Specifications to Facility Operating License NPF-10 for San Onofre Unit 2, this submittal provides the required 30-day written report and a copy of the Licensee Event Report (LER) form for an occurrence involving Limiting Conditions for Operation (LCO's) 3.2.6 and 3.7.1.3, associated with the Reactor Coolant Cold Leg Temperature (T_c) and the Condensate Storage Tanks (CST's), respectively. This report was delayed in order to provide a complete response.

On November 14, 1983, at 1858, with Unit 2 in Mode 1 at 80% power, an unexpected pressurizer pressure and level decrease was observed by the operator. The reactor was manually tripped at 1901 when pressurizer pressure continued to decrease to 1800 psia. Concurrently, the low pressurizer pressure automatically initiated a Containment Cooling Actuation Signal (CCAS) and a Safety Injection Actuation Signal (SIAS), however, water was not injected into the RCS since RCS pressure remained higher than the High Pressure Safety Injection (HPSI) shutoff head.

Our analysis of this event determined that the pressurizer pressure and level decrease was caused by a primary-to-secondary power mismatch. This mismatch was a result of inadvertent boration which occurred when concentrated boric acid solution was pumped directly into the RCS by the charging pumps during an automatic make-up evolution. A direct flowpath existed between

Perkins
I
IE-34
1/1

the Boric Acid Make-Up (BAMU) tank and the charging pump suction header, thereby bypassing the Volume Control Tank (VCT) and the blending process that occurs there. The direct flowpath had been established at 1805 when an operator erroneously opened emergency boration valve 2HV-9247 instead of the intended containment sump valve. As a result of our investigation of this incident, we believe that the operator actuated the wrong control as a result of the similarity of the location and appearance of the emergency boration valve control switch as compared to that of the containment sump valve control switch.

Additionally, it was determined that during the plant transient, T_C dropped below 544°F with reactor power above 30% for approximately 1-1/2 minutes immediately preceeding the reactor trip, contrary to LCO 3.2.6. LCO 3.2.6 was no longer applicable following the trip. During stabilization of plant conditions following the trip, CST 2T-121's level dropped below 144,000 gallons on two occasions, contrary to LCO 3.7.1.3. The associated Action Statement was satisfied when tank level was restored at approximately 2000.

As corrective action, the operator responsible for opening 2HV-9247 has been counseled by the Plant Superintendent. To prevent recurrence of this type of event, the initial license training program includes simulator training which exposes operators to similar minor malfunctions during normal evolutions. This training will also be included in the operator requalification training program. In addition, we are examining the Control Room panels to identify controls that have similar potentially confusing locations and appearances and are considering the necessity of providing some form of unique identification or other measures to prevent recurrence of events such as described in this report.

There was no impact on the health and safety of plant personnel or the public associated with this event.

If you require any additional information, please so advise.

Sincerely,

M. R. Haynes

Enclosure: LER No. 83-151

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
Office of Inspection and Enforcement

U. S. Nuclear Regulatory Commission
Division of Technical Information and Document Control

Institute of Nuclear Power Operations (INPO)