

LICENSEE EVENT REPORT (LER)

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

TITLE (4)

TOXIC GAS ISOLATION SYSTEM (TGIS) HYDROCARBON ANALYZER MALFUNCTION

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 7	2 2	8 5	8 5	0 3 9	0 1 1	0 2	5	8 5	SONGS, UNIT 3		0 5 0 0 0 3 6 2
0 5 0 0 0 3 6 2											

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)									
POWER LEVEL (10)	1 0 0	20.402(b)	20.405(c)	X	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)(vi)	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)(vii)(A)						
		20.405(a)(1)(iv)	50.73(a)(2)(ii)		50.73(a)(2)(vii)(B)						
		20.405(a)(1)(v)	50.73(a)(2)(iii)		50.73(a)(2)(x)						

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
H. E. MORGAN, STATION MANAGER	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
B	V I	4 5	B 1 3 3	N					

SUPPLEMENTAL REPORT EXPECTED (14)

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

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

On July 22, 1985, at 0104, with Units 2 and 3 at 100% and at 55% power, respectively, Toxic Gas Isolation System (TGIS) Train 'B' (EIIS System Code VI) actuated when the hydrocarbon analyzer (EIIS Component Code 45) exceeded its actuation setpoint. The Control Room Emergency Air Cleanup System (CREACUS) (EIIS System Code VI) actuated as required. At 0153 TGIS was reset.

It has been determined that a low hydrogen (H₂) supply pressure caused the hydrocarbon analyzer actuation. The cause of the low H₂ pressure was a misalignment of the H₂ bottles. An investigation revealed that operators can be easily misled by the installed pressure gauges, because gas trapped in the instrument sensing lines can give a false indication of the bottle status. To prevent recurrence, Operating Instruction S023-3-2.29, "Toxic Gas Analyzer Operation," has been revised to use signs or caution tags to delineate the status of the H₂ and air bottles. Additionally, this event has been discussed with all operators at pre-shift briefings, and training has been provided on the potential problems associated with this system.

The expected TGIS response to a low H₂ pressure condition is a hydrocarbon analyzer channel failure signal and flameout with no actuation. A test of the hydrocarbon analyzer was performed on 9/5/85, and determined that a low H₂ supply pressure causes the hydrocarbon analyzer to drift high, actuating the TGIS. The cause of this actuation appears to be a malfunction of the Hydrocarbon Analyzer Burner Assembly under low H₂ pressure conditions. A new burner assembly has been ordered from the manufacturer and will be installed and tested to verify the Hydrocarbon Analyzer Burner Assembly is the cause of the actuation. TGIS remains operable, however, during low H₂ pressure conditions.

TE 22 11



Southern California Edison Company

SAN ONOFRE NUCLEAR GENERATING STATION

P. O. BOX 128

SAN CLEMENTE, CALIFORNIA 92672

H. E. MORGAN
STATION MANAGER

TELEPHONE
(714) 368-6241

October 25, 1985

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

Subject: Docket No. 50-361
30 Day Report
Licensee Event Report No. 85-039, Revision 1
San Onofre Nuclear Generating Station, Units 2 and 3

Reference: Letter, H. E. Morgan (SCE) to USNRC Document Control Desk,
dated August 21, 1985, "Licensee Event Report No. 85-039"

The referenced letter provided the required 30 day written Licensee Event Report (LER) for an occurrence involving an actuation of the Toxic Gas Isolation System (TGIS). The referenced letter stated that we would continue the investigation into the cause of the event. Further investigation has determined that the cause of the event was a malfunction of the Hydrocarbon Analyzer Burner Assembly under low hydrogen supply pressure conditions. A new burner assembly has been ordered from the manufacturer and will be installed. Enclosed is LER 85-039, Revision 1, which completes our investigation and corrective action as discussed above.

If you require any additional information, please so advise.

Sincerely,

Enclosure LER No. 85-039, Revision 1

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

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

Institute of Nuclear Power Operations (INPO)

IE22
1/1