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AUTH.NAME AUTHOR AFFILIATION
MORGAN,H.E. Southern California Edison Co.
RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 88-013-00:on 880606,fuel handling isolation sys Train B spurious actuation duing monitor return to svc.

W/8 ltr.

DISTRIBUTION CODE: IE22D COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 5
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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 4

Title (4)

FUEL HANDLING ISOLATION SYSTEM TRAIN 'B' SPURIOUS ACTUATION DURING MONITOR RETURN TO SERVICE

EVENT DATE (5)			LER NUMBER (6)				REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
Month	Day	Year	Year	/// Sequential Number	/// Revision Number		Month	Day	Year	Facility Names	Docket Number(s)
0 6	0 6	8 8	8 8	--- 0 1 3	--- 0 0		0 7	0 6	8 8	NONE	0 5 0 0 0
											0 5 0 0 0

OPERATING MODE (9)	0
POWER LEVEL (10)	1 0 0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (11)

___ 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)(vii)	___ Other (Specify in Abstract below and in text)
___ 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	TELEPHONE NUMBER AREA CODE
H. E. Morgan, Station Manager	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 NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)

		Expected Submission Date (15)	Month	Day	Year
XX Yes (If yes, complete EXPECTED SUBMISSION DATE)	___ NO		1 2	1 5	8 8

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

On June 6, 1988, at 0020, with Unit 2 at 100% reactor power, FHIS Train 'B' was spuriously actuated when the particulate/iodine channel of Airborne Monitor 2RI-7823A2 received an instrument failure signal during restoration testing for return to service. There was no indication of increased radiation levels in the Fuel Handling Building (FHB). After the airborne activity levels in the FHB were confirmed to be normal, FHIS Train 'B' was secured and the FHB ventilation system was returned to normal.

Investigation into the actuation identified that the instrument failure signal was generated sometime during the sequence of switching the "Normal/Bypass" keylock switch from the "Normal" to the "Bypass" position and depressing the reset pushbutton. Following the actuation, instrument failure signals were sporadically produced while duplicating this evolution.

The investigation to determine why performance of this sequence of steps causes the generation of an instrument failure signal is continuing and a supplemental LER will be submitted upon completion.

IE22

Plant: San Onofre Nuclear Generating Station
Unit: Two
Reactor Vendor: Combustion Engineering
Event Date: 06-06-88
Time: 0020

A. CONDITIONS AT TIME OF THE EVENT:

Mode: 1, Power Operations at 100%

B. BACKGROUND INFORMATION:

The Fuel Handling Isolation System (FHIS) (EIIS System Code VG) consists of two independent "Trains" of radiation monitors (2RT-7822 for Train 'A' and 2RT-7823 for Train 'B') (EIIS Component Code RIT), associated dampers and recirculation air filtration units. Each train consists of a particulate/iodine channel (2RI-7822A1 and 2RI-7823A2, Train 'A' and 'B', respectively) and a gas channel (2RI-7822B1 and 2RI-7823B2, Train 'A' and 'B', respectively). Only one channel is required to initiate an actuation. Each train is actuated by either a remote manual push button or by one of the radiation monitors sensing high radiation, instrument failure, or loss of power. A FHIS actuation isolates normal ventilation to the Fuel Handling Building (FHB) and initiates recirculation.

C. DESCRIPTION OF THE EVENT:

1. Event:

On June 6, 1988, at 0020, with Unit 2 at 100% reactor power, FHIS Train 'B' was spuriously actuated when the particulate/iodine channel of Airborne Monitor 2RI-7823A2 received an instrument failure signal during restoration testing for return to service. There was no indication of increased radiation levels in the Fuel Handling Building (FHB). After the airborne activity levels in the FHB were confirmed to be normal, FHIS Train 'B' was secured and the FHB ventilation system was returned to normal.

2. Inoperable Structures, Systems or Components that Contributed to the Event:

None.

3. Sequence of Events:

DATE	TIME	ACTION
06/06/88	0020	FHIS Train 'B' actuated.
06/06/88	0035	FHIS Train 'B' reset/secured.
		FHB ventilation returned to normal.

4. Method of Discovery:

Control Room indications and alarms alerted the operators to the FHIS actuation.

5. Personnel Actions and Analysis of Actions:

Operators responded properly to the FHIS actuation by verifying system operation and ensuring FHB airborne activity levels were below the actuation setpoint prior to resetting FHIS. When it was observed that one of the recirculation air filtration units (FHB Pump Room Cooler 2ME442) (EIIS Component Code AHU) did not automatically start upon the FHIS actuation, operators responded properly by manually starting the cooler via the remote handswitch.

6. Safety System Responses:

All FHIS Train 'B' components functioned as designed with the exception of the FHB Pump Room Cooler 2ME442, which did not start and one of the "FHIS Actuation" annunciator windows CR60A22, which did not alarm. The proper operation of 2ME442 was verified by manually starting and stopping the cooler using its remote handswitch.

D. CAUSE OF THE EVENT:

1. Immediate Cause:

Investigation into the actuation identified that the instrument failure signal was generated sometime during the sequence of switching the "Normal/Bypass" keylock switch from the "Normal" to the "Bypass" position and depressing the reset pushbutton. Following the actuation, instrument failure signals were sporadically produced while duplicating this evolution.

With respect to 2ME442 not starting, it is believed that the Radiation Monitor Technician, who was in the process of returning the monitor to service at the time of the actuation, reset the FHIS before the time delay circuit of the cooler would have allowed the cooler to start.

2. Root Cause:

The investigation to determine why performance of the sequence of steps (switching the "Normal/Bypass" keylock switch from the "Normal" to the "Bypass" position and depressing the reset pushbutton) causes the generation of an instrument failure signal is continuing and a supplemental LER will be submitted upon completion.

In addition, the investigation into the cause of the annunciator window failure to alarm is also continuing.

E. CORRECTIVE ACTIONS:

1. The investigations into the cause of the sporadic instrument failure signal and annunciator window CR60A22 failure to alarm are continuing.

2. The monitor will not be returned to service until it satisfactorily passes a functional test, including a verification that all components function as designed.

3. A supplemental LER will be submitted upon completion of the aforementioned investigations.

F. SAFETY SIGNIFICANCE OF THE EVENT:

There is no safety significance to this event since FHB airborne activity levels remained normal and the monitor actuated spuriously. In addition, there is no safety significance associated with FHIS Actuation window CR60A22 failure to alarm since FHIS Actuation window CR60Z06 annunciated to alert the operators. Also, although 2ME442 did not start automatically with the actuation signal (for the reason described above), it was manually started moments later by the operators.

G. ADDITIONAL INFORMATION:

1. Component Failure Information:

At this point in the investigations, no component failures have been identified.

2. Previous LERs on Similar Events:

No previous LERs have been attributed to the switching evolution of the "Normal/Bypass" switch.

3. Results of NPRDS Search:

Not applicable.

Southern California Edison Company

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H. E. MORGAN
STATION MANAGER

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(714) 368-6241

July 6, 1988

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

Subject: Docket No. 50-361
30-Day Report
Licensee Event Report No. 88-013
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 a spurious actuation of the Fuel Handling Building Isolation System. Neither the health and safety of plant personnel or the public was affected by this occurrence.

If you require any additional information, please so advise.

Sincerely,

HEMorg

Enclosure: LER No. 88-013

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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