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 FACIL:50-361 San Onofre Nuclear Station, Unit 2, Southern Californ 05000361
 AUTH.NAME AUTHOR AFFILIATION
 MORGAN,H.E. Southern California Edison Co.
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SUBJECT: LER 88-029-00:on 880921,handling machine operation w/
 inoperable fuel handling isolation sys monitors.

W/8

ltr.

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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 5**
 Title (4)

FUEL HANDLING MACHINE OPERATION WITH INOPERABLE FUEL HANDLING ISOLATION SYSTEM MONITORS

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 9	2 1	8 8	8 8	0 2 9	0 0				NONE	0 5 0 0 0 0		
OPERATING MODE (9) 1				THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (11)								
POWER LEVEL (10)		1 0 0		20.402(b)		20.405(c)		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		
				20.405(a)(1)(iii)		X 50.73(a)(2)(i)		50.73(a)(2)(viii)(A)		Abstract below and		
				20.405(a)(1)(iv)		50.73(a)(2)(ii)		50.73(a)(2)(viii)(B)		in text)		
				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 NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)

☐ Yes (If yes, complete EXPECTED SUBMISSION DATE) ☒ NO Expected Submission Date (15) **Month Day Year**

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

On 9/21/88, with Unit 2 in Mode 1 at 100% power, the Spent Fuel Handling Machine (SFHM) was operated for approximately 30 minutes with both Fuel Handling Isolation Signal (FHIS) monitors inoperable. Technical Specification (TS) 3.9.12, Fuel Handling Building Post-Accident Cleanup Filter System, requires under these conditions a Fuel Handling Building (FHB) post-accident cleanup (PACU) unit be in operation and be capable of being powered by an operable emergency power source. Although a PACU unit was in service, it's associated emergency power source was out of service. This condition was therefore contrary to TS 3.9.12.

The root cause of this event has been contributed to the ambiguity of the TS action requirements. The FHIS monitors are governed by TS 3.3.3.1 and 3.3.2, both of which direct compliance with the action requirements of TS 3.9.12 in the event of 2 inoperable FHIS monitors. However, TS 3.9.12 only discusses action requirements for either one or both PACU units being inoperable. Since both PACU units were capable of being operated, the operations crew believed that TS 3.9.12 was not invoked. Notwithstanding this misinterpretation, the operators did recognize the need to place the FHB ventilation system in the recirculation mode prior to operating the SFHM.

Discussions with the operating crew on the event have taken place. A clarification of TS action requirements for the FHIS monitors will be developed. Additionally, a TS change will be submitted to the NRC which will eliminate the ambiguity which currently exists.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

SAN ONOFRE NUCLEAR GENERATION STATION UNIT 2	DOCKET NUMBER 05000361	LER NUMBER 88-029-00	PAGE 2 OF 5
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Plant: San Onofre Nuclear Generating Station
Unit: Two
Reactor Vendor: Combustion Engineering
Event Date: 09-21-88

A. CONDITIONS AT TIME OF THE EVENT:

Mode: 1, Power Operation at 100% reactor power

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. In this alignment, post-accident cleanup (PACU) (EIIS System Code VG) (EIIS Component Code AHU) units are used for cooling and filtration of the FHB air.

The FHIS monitors are governed by Technical Specifications (TS) 3.3.3.1 and 3.3.2, both of which direct compliance with the action requirements of TS 3.9.12, Fuel Handling Building Post-Accident Cleanup Filter System, in the event of 2 inoperable FHIS monitors. TS 3.9.12 discusses action requirements for either one or both PACU units being inoperable. TS 3.9.12, Action "a" states that with one PACU unit inoperable, operation of the fuel handling machine over the storage pool may proceed provided the operable fuel handling building post-accident cleanup filter system is capable of being powered from an operable emergency power source and is in operation and discharging through at least one train of filters and charcoal absorbers. TS 3.9.12, Action "b", prohibits operation of the fuel handling machine over the storage pool if both PACU units are inoperable.

C. DESCRIPTION OF THE EVENT:

1. Event:

On 9/21/88, a surveillance of the Unit 2 Spent Fuel Handling Machine (SFHM) (EIIS System Code ND) (EIIS Component Code FHM) was performed. The surveillance, which took approximately 30 minutes, involved positioning a load beam, weighing approximately 60 pounds, underneath the SFHM trolley and raising the hoist until the overload indicator was energized and the hoist stopped. Movement of the bridge and trolley was then attempted to ensure that the interlocks were engaged.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

SAN ONOFRE NUCLEAR GENERATION STATION UNIT 2	DOCKET NUMBER 05000361	LER NUMBER 88-029-00	PAGE 3 OF 5
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Performance of the surveillance, which constitutes operation of the SFHM, occurred while both FHB monitors were inoperable. TS 3.9.12 requires under these conditions a FHB PACU unit to be in operation and be capable of being powered by an operable emergency power source. Although a PACU unit was in service, it's associated emergency power source was out of service. This condition was therefore contrary to TS 3.9.12.

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

Both Unit 2 FHB Monitors 2RT-7822 and 2RT-7823 were inoperable from 9/6/88 to 10/26/88 for the performance of planned design change work. Also, from 9/20/88 to 9/22/88, the Train 'A' Emergency Diesel Generator (DG) (EIS System Code EK), which provides the emergency power for the Train 'A' FHB PACU unit, was removed from service for the performance of preventive and corrective maintenance.

3. Sequence of Events:

<u>TIME</u>	<u>DATE</u>	<u>ACTION</u>
0315	9/06/88	FHB Monitors 2RT-7822 and 2RT-7823 placed in bypass.
0409	9/20/88	Train 'A' Emergency DG removed from service.
Dayshift	9/21/88	FHB ventilation placed in isolation mode with Train 'A' PACU unit in operation.
Later in the shift	9/21/88	SFHM operated for 30 minutes to perform surveillance. Following completion of surveillance, FHB ventilation returned to normal configuration. PACU secured.

4. Method of Discovery:

On 9/22/88, during a review of the FHB ventilation configuration of the previous day, it was determined that a potentially reportable condition had existed. At that time, appropriate personnel involved with reportability evaluations were informed. However, due to the ambiguity of the TS, an incorrect judgment was made that TS were not violated, and documentation of the reportability evaluation was given a low priority for completion. On 11/4/88, while preparing the formalized reportability evaluation, it was determined that the event was reportable.

5. Personnel Actions and Analysis of Actions:

Not applicable.

6. Safety System Responses:

Not applicable.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

SAN ONOFRE NUCLEAR GENERATION STATION UNIT 2	DOCKET NUMBER 05000361	LER NUMBER 88-029-00	PAGE 4 OF 5
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D. CAUSE OF THE EVENT:

The root cause of this event has been attributed to the ambiguity of the TS action requirements. The FHIS monitors are governed by TS 3.3.3.1 and 3.3.2, both of which direct compliance with the action requirements of TS 3.9.12 in the event of 2 inoperable FHIS monitors. However, TS 3.9.12 only discusses action requirements for either one or both PACU units being inoperable. Since both PACU units were capable of being operated, the operations crew believed that TS 3.9.12 was not invoked. Notwithstanding this misinterpretation, the operators did recognize the need to place the FHB ventilation system in the recirculation mode prior to operating the SFHM.

In accordance with plant policy, the operator in this case referred to existing written guidance by plant management for events which are not clearly addressed by the TS. However, the guidance he used had been developed based upon the belief that the individual using the guidance would know that TS 3.9.12 was applicable. Therefore, it only directed the operator to place the operable PACU unit in operation, believing that the individual would know that, per TS 3.9.12, the PACU in operation must have an operable emergency power source. Consequently, the operator placed into operation the PACU unit which was incapable of being powered by an operable emergency power source.

E. CORRECTIVE ACTIONS:

1. Corrective Actions Taken:

- a) Discussions with the operating crew on the event have taken place.
- b) The personnel involved with determining the reportability aspects of this event have been reinstructed on the need to follow-up on reportability evaluations in a timely manner.

2. Planned Corrective Actions:

- a) A clarification of TS 3.3.3.1, 3.3.2, and 3.9.12 action requirements with respect to FHIS monitors will be developed.
- b) A TS change will be submitted to the NRC which will eliminate the ambiguity which currently exists.

F. SAFETY SIGNIFICANCE OF THE EVENT:

In the unlikely event of a Fuel Handling Accident while the SFHM was operated for 30 minutes, there would have been no significant release of radioactivity to the environment since the FHB ventilation system was in the isolation mode with Train 'A' PACU unit in operation. Furthermore, the operators could have started the Train 'B' PACU unit had a loss of offsite power occurred. Therefore, there were no safety consequences resulting from this event.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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G. ADDITIONAL INFORMATION:

1. Component Failure Information:

None.

2. Previous LERs on Similar Events:

None.

3. Results of NPRDS Search:

Not applicable.



Southern California Edison Company

SAN ONOFRE NUCLEAR GENERATING STATION

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December 2, 1988

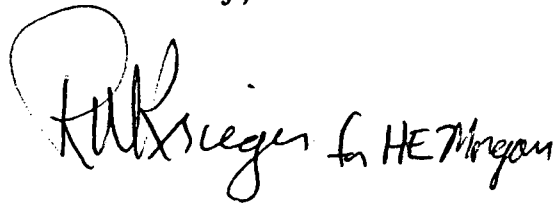
U. S. Nuclear Regulatory Commission
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Washington, D.C. 20555

Subject: Docket No. 50-361
30-Day Report
Licensee Event Report No. 88-029
San Onofre Nuclear Generating Station, Unit 2

Pursuant to 10 CFR 50.73(a)(2)(i), this submittal provides the required 30-day written Licensee Event Report (LER) for an occurrence involving operation of the Spent Fuel Handling Machine with both Fuel Handling Isolation System monitors inoperable. 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,



Enclosure: LER No. 88-029

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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