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EDISON

An EDISON INTERNATIONAL Company

R. W. Krieger
Vice President
Nuclear Generation

October 12, 2000

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

Subject: **Docket No. 50-361**
30-Day Report
Licensee Event Report No. 2000-0011
San Onofre Nuclear Generating Station, Unit 2

Gentlemen:

This submittal provides a 30-day Licensee Event Report (LER) in accordance with 10CFR50.73(a)(2)(iv) describing the manual initiation of the containment emergency cooling system and the containment dome air circulator system, Engineered Safety Features (ESF). Neither the health nor the safety of plant personnel or the public was affected by this occurrence.

Any actions listed are intended to ensure continued compliance with existing commitments as discussed in applicable licensing documents; this LER contains no new commitments. If you require any additional information, please so advise.

Sincerely,

LER No. 2000-0011

cc: E. W. Merschoff, Regional Administrator, NRC Region IV
J. A. Sloan, NRC Senior Resident Inspector, San Onofre Units 2 & 3

P. O. Box 128
San Clemente, CA 92674-0128
714-368-6255
Fax 714-368-6183

IEDD

NRC FORM 366 (MM-YY(Y))		U.S. NUCLEAR REGULATORY COMMISSION			APPROVED BY OMB NO. 3150-0104			EXPIRES MM/DD/YYYY			
LICENSEE EVENT REPORT (LER)										Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the Information and Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503. If a document used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.	
(See reverse for required number of digits/characters for each block)											
FACILITY NAME (1) San Onofre Nuclear Generation Station (SONGS) Unit 2						DOCKET NUMBER (2) 05000-361			PAGE (3) 1 of 4		
TITLE (4) Manual Start of a Containment Emergency Cooler, ESF Actuation											
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 NAME	DOCKET NUMBER	
09	17	2000	2000	- 011 -	00	10	12	2000			
THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)											
OPERATING MODE (9)		1		20.2201(b)		20.2203(a)(2)(v)		50.73(a)(2)(i)		50.73(a)(2)(viii)	
POWER LEVEL (10)		100		20.2203(a)(1)		20.2203(a)(3)(i)		50.73(a)(2)(ii)		50.73(a)(2)(x)	
				20.2203(a)(2)(f)		20.2203(a)(3)(ii)		50.73(a)(2)(iii)		73.71	
				20.2203(a)(2)(ii)		20.2203(a)(4)		X 50.73(a)(2)(iv)		OTHER	
				20.2203(a)(2)(iii)		50.36(c)(1)		50.73(a)(2)(v)		Specify in Abstract below or in NRC Form 366A	
				20.2203(a)(2)(iv)		50.36(c)(2)		50.73(a)(2)(vii)			
LICENSEE CONTACT FOR THIS LER (12)											
NAME R. W. Krieger, Vice President, Nuclear Operations						TELEPHONE NUMBER (Include Area Code) 949-368-6255					
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)											
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	
SUPPLEMENTAL REPORT EXPECTED (14)						EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR	
YES (If yes, complete EXPECTED SUBMISSION DATE).				X	NO						

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On September 17, 2000, at about 0620 PDT, non-1E containment normal chiller (2ME201) tripped on low oil pressure. Plant operators attempted to start the other containment normal chiller (2ME202) but stopped when the pre-start checks indicated low freon level. Because containment temperatures were slowly increasing, the Emergency Containment Cooler units (ECU) were placed in service and an additional containment dome air circulator was started. The containment emergency coolers and dome air circulator operated as designed.

On September 18, 2000, at 1258 PDT, Southern California Edison (SCE) made a 4-hour telephone notification to the NRC Operations Center (Log No. 37343) in accordance with 10CFR50.72(b)(2)(ii) for a manual actuation of an Engineered Safety Feature (ESF) component, even though the ECUs were not performing an ESF function during this event. SCE is providing this 30-day follow-up report in accordance with 10CFR50.73(a)(2)(iv).

Normal containment cooler 2ME201 was repaired. A small amount of freon was added to normal containment cooler 2ME202 as a conservative measure.

This event had no safety significance.

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Plant: San Onofre Nuclear Generating Station, Unit 2
 Reactor Vendor: Combustion Engineering
 Event Date: September 17, 2000
 Mode: 1 - power operation
 Power: 99.9 percent

Background:

The containment normal HVAC systems [VA] (non-safety related, non-1E powered) are designed to maintain a containment ambient air temperature below 120 degrees F during normal plant operation. The Containment Normal Cooling Units consist of five 25 percent air handling units and two 100 percent capacity chillers. Typically, four of the five containment normal cooling units operate continuously during normal power generation. The cooling units are manually operated from the control room as containment temperature conditions require.

The Containment Emergency Cooling System (ECU) [BK] is an Engineered Safety Feature (ESF) system. It is designed to ensure, in conjunction with the Containment Spray System [BE], that the heat removal capability required during the post accident period can be attained. The Updated Final Safety Analysis Report (UFSAR) indicates that the ECU should be used as required to maintain containment temperature less than or equal to 120°F and containment pressure less than or equal to 1.5 psig.

The four containment dome air circulators [BB], an ESF system, reduce the potential for breach of containment due to a hydrogen oxygen reaction by providing a uniformly mixed post accident containment atmosphere. The dome air circulating units start automatically upon a containment cooling actuation signal (CCAS). The units can be manually operated from the control room.

During normal operation, the Component Cooling Water System (CCW) [CC] provides cooling for various nonessential components, such as:

- The Control Element Drive Mechanism (CEDM) [AA] Cooling System.
- Reactor Coolant [AB] Pump (RCP) [P] seals.

The CCW also provides a heat sink for the removal of process and operating heat from safety related components, such as the ECU, during a Design Basis Accident (DBA) or transient.

Description of the Event:

On September 17, 2000, at about 0620 PDT, non-1E containment normal chiller (2ME201) tripped on low oil pressure (AR000900829). Plant operators (utility, licensed) attempted to start the other containment normal chiller (2ME202) but stopped when the pre-start checks indicated low freon level. Because containment temperatures were slowly increasing, the Emergency Containment Cooler units (ECU) were placed in service and an additional containment dome air circulator was started. The containment emergency coolers and dome air circulator operated as designed. When operators aligned Component Cooling Water (CCW) flow to ECU Train A coolers ME401 and ME402, CCW flow was diverted from the CCW Non-Critical Loop (NCL) causing:

1. Lower cooling water flow and pressure to the reactor coolant pump (RCP) seals. RCP seal temperature increased.

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2. Reduced flow to the in-service Control Element Drive Mechanism (CEDM) cooler which caused the cooler's outlet and inlet air temperatures to increase.

A second Train A CCW pump was started and restoring CCW parameters to normal. After determining that 2ME202 was functional with the indicated low freon level, plant operators started 2ME202 at about 0815 PDT on September 17, 2000, terminating this event.

On September 18, 2000, at 1258 PDT, Southern California Edison (SCE) made a 4-hour telephone notification to the NRC Operations Center (Log No. 37343) in accordance with 10CFR50.72(b)(2)(ii) for a manual actuation of an Engineered Safety Feature (ESF) component, even though the ECUs were not performing an ESF function during this event. SCE is providing this 30-day follow-up report in accordance with 10CFR50.73(a)(2)(iv).

Cause of the Event:

The containment normal chiller 2ME201 tripped on low oil pressure. Follow-up investigation revealed an inoperable chiller motor.

Subsequent checks of the freon level in containment normal chiller 2ME202 indicated that the level was satisfactory. Refrigerant leak checks performed on September 12, and September 17, 2000, reported no refrigerant leaks. It is not known why a low freon level was observed previously.

Corrective Actions:

Normal containment cooler 2ME201 was repaired. A small amount of freon was added to normal containment cooler 2ME202 as a conservative measure. No other repairs are planned at this time.

Safety Significance:

This event had no safety significance.

- UFSAR Section 7.4 states that the ECU should be used as required to maintain containment temperature less than or equal to 120 degrees F and containment pressure less than or equal to 1.5 psig consistent with the initial plant conditions assumed in the UFSAR Chapter 15 accident analyses. For this event, the ECU was placed in service to perform that function, not its ESF function.
- Normal containment chiller 2ME202 was placed into service before the cooling capacity of the ECUs would have been required to maintain containment temperature and pressure below the values assumed in the accident analyses. Hence, the use of the ECU can be considered precautionary.
- This event was not caused by nor did it result in a Safety System Functional Failure (SSFF). This event did not impact the ability shut down the Unit or mitigate the consequences of an accident. SCE concludes that there was no increase in calculated Core Damage Frequency or Large Early Release Frequency. This occurrence is categorized "Green" using the latest draft of the Reactor Safety Significance Determination Process (SDP).

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Additional Information:

In the past 3 years, SCE has reported the following ESF actuations:

1. LER 2000-008, Radiography Causes Control Room Isolation (CRIS) Actuation, reported an event when the control room automatically isolated in response to radiation from a radiographer's source. This event involved different systems and causes than the event reported herein. Therefore, the corrective actions should not have prevented the event reported herein.
2. LER 1999-004, Automatic Toxic Gas Isolation (TGIS) Actuation, reported an event when the control room automatically isolated in response to a small freon release from a hose being used for maintenance. This event involved different systems and causes than the event reported herein. Therefore, the corrective actions should not have prevented the event reported herein.
3. LER 1999-001, Automatic Start of an Emergency Diesel Generator, reported an event when an Emergency Diesel Generator started in response to a loss of power on an emergency bus. The loss of power was caused by the inadvertent operation of a breaker during plant maintenance. This event involved different systems and causes than the event reported herein. Therefore, the corrective actions should not have prevented the event reported herein.
4. LER 1998-017, Manual Toxic Gas Isolation (TGIS) Actuation, reported an event when operators, as a precautionary action, manually isolated the control room in response to a faint chorine odor. This event, while involving different systems and causes than the event reported herein, is similar because it involved a precautionary manual actuation in response to actual plant conditions. The corrective actions should not have prevented the event reported herein.