

March 27, 2002

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

Subject: **Docket No. 50-362**
60-Day Report
Licensee Event Report No. 2001-002
San Onofre Nuclear Generating Station, Unit 3

Gentlemen:

This submittal provides a 60-day Licensee Event Report (LER) in accordance with 10CFR50.73(a)(2)(i)(B) for the commencing the movement of irradiated fuel in the Unit 3 Fuel Handling Building while one train of the Post Accident Cleanup System was inoperable. 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. 2001-002

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

IE22

NRC FORM 366 (MM-YYYY)		U.S. NUCLEAR REGULATORY COMMISSION		APPROVED BY OMB NO. 3150-0104 <small>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.</small>		EXPIRES MM-YYYY																																						
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FACILITY NAME (1) San Onofre Nuclear Generation Station (SONGS) Unit 3				DOCKET NUMBER (2) 05000-362		PAGE (3) 1 of 3																																						
TITLE (4) Starting the Movement of Irradiated Fuel With One Train of PACU Inoperable causes TS Violation																																												
EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)																																						
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR																																				
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OPERATING MODE (9) 6			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply) (11)																																									
POWER LEVEL (10) N/A			<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>20.2201(b)</td> <td>20.2203(a)(3)(i)</td> <td>50.73(a)(2)(i)(C)</td> <td>50.73(a)(2)(vii)</td> </tr> <tr> <td>20.2201(d)</td> <td>20.2203(a)(3)(ii)</td> <td>50.73(a)(2)(ii)(A)</td> <td>50.73(a)(2)(viii)(A)</td> </tr> <tr> <td>20.2203(a)(1)</td> <td>20.2203(a)(4)</td> <td>50.73(a)(2)(ii)(B)</td> <td>50.73(a)(2)(viii)(B)</td> </tr> <tr> <td>20.2203(a)(2)(i)</td> <td>50.36(c)(1)(i)(A)</td> <td>50.73(a)(2)(iii)</td> <td>50.73(a)(2)(ix)(A)</td> </tr> <tr> <td>20.2203(a)(2)(ii)</td> <td>50.36(c)(1)(ii)(A)</td> <td>50.73(a)(2)(iv)(A)</td> <td>50.73(a)(2)(x)</td> </tr> <tr> <td>20.2203(a)(2)(iii)</td> <td>50.36(c)(2)</td> <td>50.73(a)(2)(v)(A)</td> <td>73.71(a)(4)</td> </tr> <tr> <td>20.2203(a)(2)(iv)</td> <td>50.46(a)(3)(ii)</td> <td>50.73(a)(2)(v)(B)</td> <td>73.71(a)(5)</td> </tr> <tr> <td>20.2203(a)(2)(v)</td> <td>50.73(a)(2)(i)(A)</td> <td>50.73(a)(2)(v)(C)</td> <td>OTHER</td> </tr> <tr> <td>20.2203(a)(2)(vi)</td> <td><input checked="" type="checkbox"/> 50.73(a)(2)(i)(B)</td> <td>50.73(a)(2)(v)(D)</td> <td>Specify in Abstract below or in NRC Form 366A</td> </tr> </table>						20.2201(b)	20.2203(a)(3)(i)	50.73(a)(2)(i)(C)	50.73(a)(2)(vii)	20.2201(d)	20.2203(a)(3)(ii)	50.73(a)(2)(ii)(A)	50.73(a)(2)(viii)(A)	20.2203(a)(1)	20.2203(a)(4)	50.73(a)(2)(ii)(B)	50.73(a)(2)(viii)(B)	20.2203(a)(2)(i)	50.36(c)(1)(i)(A)	50.73(a)(2)(iii)	50.73(a)(2)(ix)(A)	20.2203(a)(2)(ii)	50.36(c)(1)(ii)(A)	50.73(a)(2)(iv)(A)	50.73(a)(2)(x)	20.2203(a)(2)(iii)	50.36(c)(2)	50.73(a)(2)(v)(A)	73.71(a)(4)	20.2203(a)(2)(iv)	50.46(a)(3)(ii)	50.73(a)(2)(v)(B)	73.71(a)(5)	20.2203(a)(2)(v)	50.73(a)(2)(i)(A)	50.73(a)(2)(v)(C)	OTHER	20.2203(a)(2)(vi)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)(B)	50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A
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LICENSEE CONTACT FOR THIS LER (12)																																												
NAME R. W. Krieger, Vice President, Nuclear Generation				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																																			
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ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On 1/18/2001, during refueling, Southern California Edison began moving fuel (new and irradiated) from the Fuel Handling Building to the reactor vessel inside containment. At that time, both trains of Post Accident Cleanup Unit (PACU) were operable. On 1/20/2001 (event date), at about 0330 PST, PACU train B was removed from service, placing the unit in Technical Specification (TS) 3.7.14, Action A. Prior to train B being returned to service, fuel movements were stopped on January 20, 2001, 1339 PST due to an equipment failure. Fuel movement re-started that same day at about 1358 PST. At that time, train B PACU was still inoperable and train A was not placed into service, as required by TS 3.7.14 Action B. and TS 3.0.4. Consequently, this event is being reported in accordance with 10CFR50.73(a)(2)(i)(B).

The event was discovered while reviewing records on March 8, 2002. The event occurred because the requirements of the TSs with respect to PACU and the movement of irradiated fuel in the Fuel Handling Building had not been correctly reflected in a plant procedure (cognizant personnel error).

The procedure was corrected and operating crews will be briefed to prevent recurrence.

This event had minimal safety significance.

LICENSEE EVENT REPORT (LER)

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Unit 3

Reactor Vendor: Combustion Engineering
Mode: Mode 6 – Refueling
Power: N/A
Temperature: N/A
Pressure: N/A

Background:

The Fuel Handling Building Post-Accident Cleanup Filter System (PACU) (VG) filters airborne radioactive particulates and gases from the area of the fuel pool following a fuel rupture accident. PACU automatically starts on a Fuel Handling Building Isolation Signal (FHIS). PACU, in conjunction with normally operating systems, also provides temperature control in the fuel pool area.

Technical Specification (TS) 3.7.14, Fuel Handling Building Post-Accident Cleanup Filter System, requires two PACU trains to be operable during movement of irradiated fuel assemblies in the Fuel Handling Building. With one train of PACU inoperable, Action A. requires the inoperable train be restored to operable within 7 days. If Action A. is not met, Action B. requires either (1) the operable train of PACU be placed into service immediately, or (2) the movement of irradiated fuel in the Fuel Handling Building be suspended immediately. Irradiated fuel may be moved indefinitely in Action B. provided the operable train of PACU is operating.

TS 3.0.4 prohibits entry into a mode or other specified condition in the Applicability except when the associated Actions to be entered permit continued operation in the mode or other specified condition in the Applicability for an unlimited period of time. Hence, if a train of PACU is declared inoperable subsequent to the start of moving irradiated fuel, moving irradiated fuel may continue for up to 7 days (Action A.). However, movement of irradiated fuel cannot be commenced with an inoperable train of PACU unless the operable train is first placed into service (Action B. entered).

Description of the Event

On January 24, 2002, SCE, while reviewing TS requirements for the Control Room Emergency Air Cleanup System (CREACUS), recognized that irradiated fuel may have been moved in the Fuel Handling Building contrary to the requirements of the PACU TS 3.7.14 and TS 3.0.4 (AR020101212). SCE's review of fuel movement records, completed on March 8, 2002 (discovery date), discovered the following event.

On January 18, 2001, at about 0743 PST, during the Unit 3 Cycle 11 refueling outage, SCE began moving fuel (new and irradiated) from the Fuel Handling Building to the reactor vessel inside containment. At that time, both trains of PACU were operable. On January 20, 2001, at about 0330 PST, PACU train B was removed from service, placing the unit in TS 3.7.14, Action A. Prior to train B being returned to service, fuel movements were stopped on January 20, 2001 (event date), 1339 PST due to an equipment failure (inverter 3Y004). The inverter was returned to operable, and fuel movement re-started that same day at about 1358 PST. At that time, train B PACU was still inoperable and train A was not placed into service. Consequently, this event is being reported in accordance with 10CFR50.73(a)(2)(i)(B).

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Cause of the Event

The event occurred because the requirements of the TSs with respect to PACU and the movement of irradiated fuel in the Fuel Handling Building had not been correctly reflected in a plant procedure (cognizant personnel error).

Corrective Action

- The Unit was in full compliance when the movement of irradiated fuel was completed on January 22, 2001, at approximately 0019 PDT and TS LCO 3.7.14 was no longer Applicable.
- Procedure SO23-3-2.11, "Spent Fuel Pool Operations," that controls the movement of irradiated fuel was revised to reflect the correct application of TS 3.7.14 and TS 3.0.4.
- Operating crews will be briefed on the TS and procedural requirements for PACU operability and the movement of irradiated fuel prior to the next refueling outage (Unit 2 Cycle 12 currently scheduled for May 2002.)

Safety Significance of the Event

PACUs are used to mitigate the consequences of a fuel handling accident in the Fuel Handling Building. However, this event had minimal safety significance because:

- The fuel handling accident analyses do not credit their operation for dose mitigation.
- One train of PACU was operable and available to respond to a fuel handling accident.
- This event was not caused by nor did it result in a Safety System Functional Failure (SSFF). This event did not impact the ability to 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).

Additional Information

- In the past three years, SCE has not reported any similar events with a similar cause.
- If a PACU train is removed from service for less than an operating shift, the activity may not be entered into the computerized LCO tracking system, but administratively tracked in the Operators' Logbook instead. The computerized LCO tracking system was used to identify the event reported herein. The Operators' Logbook was not searched. Consequently, it is possible that on some other occasion(s) similar operations prohibited by TS 3.7.14 and TS 3.0.4 may have been performed. If so, that occurrence(s) would have been limited to a period of one shift or less.