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10 CFR 50.73(a)(2)(v)(B)

March 25, 2010

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555-0001

Subject: **Docket No. 50-361**
Licensee Event Report No. 2007-007
San Onofre Nuclear Generating Station, Unit 2

Dear Sir or Madam:

This submittal provides Licensee Event Report (LER) 2-2007-007 to report a loss of safety function when both spent fuel pool cooling pumps were inoperable. This event was not reported previously because it was not considered a loss of safety function at the time of the event. Based on recent NRC guidance, SCE is reporting this occurrence as a loss of safety function. This event is of low safety significance and did not affect the health and safety of either plant personnel or the public.

If you require any additional information, please contact me.

Sincerely,

Douglas R. Bauder
Plant Manager

Unit 2 LER No. 2007-007

cc: E. E. Collins, NRC Regional Administrator, Region IV
G. G. Warnick, NRC Senior Resident Inspector, San Onofre Units 2 & 3

IE22
NRR

P.O. Box 128
San Clemente, CA 92672

NRC FORM 366 (9-2007) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 08/31/2010

Estimated burden per response to comply with this mandatory information collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose 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.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
San Onofre Nuclear Generating Station Unit 2	05000-361	1 OF 3

4. TITLE
Inoperable SFP Cooling Pumps Results in Loss of Safety Function

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
02	13	2007	2007-007-00			03	25	2010	FACILITY NAME	DOCKET NUMBER

9. OPERATING MODE	1
10. POWER LEVEL	98.5

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR : (Check all that apply)

20.2201(b)	20.2203(a)(3)(ii)	50.73(a)(2)(ii)(B)	50.73(a)(2)(ix)(A)
20.2201(d)	20.2203(a)(4)	50.73(a)(2)(iii)	50.73(a)(2)(x)
20.2203(a)(1)	50.36(c)(1)(i)(A)	50.73(a)(2)(iv)(A)	73.71(a)(4)
20.2203(a)(2)(i)	50.36(c)(1)(ii)(A)	50.73(a)(2)(v)(A)	73.71(a)(5)
20.2203(a)(2)(ii)	50.36(c)(2)	X 50.73(a)(2)(v)(B)	OTHER
20.2203(a)(2)(iii)	50.46(a)(3)(ii)	50.73(a)(2)(v)(C)	
20.2203(a)(2)(iv)	50.73(a)(2)(i)(A)	50.73(a)(2)(v)(D)	
20.2203(a)(2)(v)	50.73(a)(2)(i)(B)	50.73(a)(2)(vii)	
20.2203(a)(2)(vi)	50.73(a)(2)(i)(C)	50.73(a)(2)(viii)(A)	
20.2203(a)(3)(i)	50.73(a)(2)(ii)(A)	50.73(a)(2)(viii)(B)	

12. LICENSEE CONTACT FOR THIS LER

NAME	TELEPHONE NUMBER (Include Area Code)
Douglas R. Bauder, Plant Manager	949-368-4685

13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX
C	BS	BKR	S345	Y					

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

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

On February 13, 2007, at 1249 PST, the Train B Spent Fuel Pool (SFP) cooling pump tripped on over current. The Train A SFP cooling pump was out of service for scheduled maintenance at the time. With both SFP cooling pumps inoperable, the plant entered the loss of SFP cooling Abnormal Operating Instruction. Train B SFP cooling pump was successfully restarted at 1407 PST, restoring SFP cooling. The temperature of the SFP increased from 71.5 to 73.0 degrees F while the pump was off.

SCE determined the cause of the over current trip was a high temperature in the motor control center (MCC) due to malfunctioning of a heater thermostat in the MCC.

This event was not reported previously because it was not considered a loss of safety function at the time of the event. Based on recent NRC guidance, SCE is reporting this occurrence under 10 CFR 50.73(a)(2)(v)(B) as a loss of safety function to remove decay heat.

The safety significance of this event is minimal since the temperature of the SFP remained well below the maximum allowed 140 degrees F, all applicable licensee controlled specifications were met, and alternate methods of cooling were available if required.

Plant: San Onofre Nuclear Generating Station (SONGS) Unit 2
Event Date: February 13, 2007
Reactor Vendor: Combustion Engineering
Mode: 1
Power: 98.5 percent

Background:

The Spent Fuel Pool (SFP) cooling system consists of two SFP pumps [P] and two SFP heat exchangers [HX]. The SFP cooling pump motors [MO] are protected from over current by thermal overload relays (TOLs) in the control circuit which actuate to turn off the power supply to the pump motors. Actuation of the TOL is triggered by high temperature, which typically results from an over current condition.

Licensee Controlled Specification (LCS) 3.7.117 requires the SFP water level to be maintained greater than 23 feet over the top of the fuel assemblies in the SFP. LCS 3.7.106, "Spent Fuel Pool Operation," requires the water in the SFP to be maintained less than 140 degrees F when the core is not fully offloaded. The LCS also requires the following actions when two SFP pumps are inoperable:

B.1 Suspend all operations involving increase in SFP decay heat load within 1 hour,
B.2 Monitor the temperature of the SFP water and estimate the time before water temperature will increase to the 140 degree F limit within 1 hour and once per shift thereafter, and
B.3.1 Initiate action to restore the components(s) to OPERABLE or operating status more than 12 hours prior to the estimated time at which water temperature will increase to the limit.

Event Description:

On February 13, 2007, SONGS Unit 2 was operating at about 98.5% power with Train A SFP cooling pump removed from service for scheduled maintenance. At about 1249 PST, the Train B SFP cooling pump tripped on over current. Operators initiated actions in accordance with the Abnormal Operating Instruction (AOI) for loss of SFP cooling. The Train B SFP cooling pump was successfully restarted at 1407 PST.

During the period when both SFP cooling pumps were not operating, the temperature in the SFP increased from approximately 71.5 to 73.0 degrees F. With the SFP pumps off, the time to exceed the maximum allowed temperature of 140 degrees F was estimated to be 56 hours.

Initial investigation determined the pump motor had tripped due to actuation of the thermal overload relays; however, the motor was not experiencing an over current condition. Upon further investigation, SCE found the thermal overload relays had actuated because of a high temperature in the Motor Control Center (MCC). The high temperature was a result of a malfunctioning thermostat that failed to turn off a heater strip installed in the MCC to prevent condensation. The heater strip was subsequently disconnected.

Corrective Actions:

Strip heaters were permanently disconnected for Units 2 and 3 Class 1E MCCs, since they are located in areas where normal air conditioning is sufficient to minimize moisture.

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Basis for Reporting:

This event was not previously reported because it was not considered a loss of safety function at the time of the event. Based on subsequent guidance from the NRC, the temporary loss of the Train B SFP cooling pump while the Train A SFP cooling pump was out of service for scheduled maintenance constituted a loss of safety function as evidenced by the increase in SFP temperature. This event, therefore, is being reported under 10 CFR 50.73(a)(2)(v)(B) as an event that could have prevented the fulfillment of a safety function of systems that are needed to remove decay heat.

Safety Significance:

The safety significance of this event was minimal. The maximum SFP temperature during this event was 73.0 degrees F, which is well below the maximum allowed temperature of 140 degrees F per the LCS. With the SFP pumps off, the time to exceed the maximum allowed temperature was approximately 56 hours. Alternate methods of cooling the SFP were available if required. All LCS requirements for two SFP cooling pumps inoperable were met and the water level in the SFP was maintained greater than 23 feet above the spent fuel.

Previous Occurrences

On February 19, 2010, SONGS submitted a report of a December 23, 2009, event in which both trains of Unit 2 SFP cooling were inoperable resulting in a loss of safety function. One train of the Component Cooling Water (CCW) system was out of service for maintenance when the salt water cooling pump in the other train was taken out of service for about 62 minutes to reverse the salt water cooling flow through the CCW heat exchanger in order to clear debris. The SFP temperature increased by about 4 degrees F during this evolution. Based on guidance from the NRC, Licensee Event Report 2009-004 was submitted to report this event as a loss of safety function.