

April 18, 1997

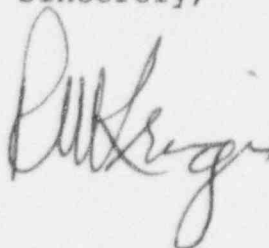
U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Subject: Docket No. 50-361
30-Day Report
Licensee Event Report No. 97-008
San Onofre Nuclear Generating Station, Unit 2

This submittal provides a written 30-day report of a missed Technical Specification surveillance. Neither the health nor safety of plant personnel or the public were affected by this occurrence.

If you require additional information, please so advise.

Sincerely,



JE22
11

Enclosure: LER No. 97-008

cc: E. W. Merschhoff, Regional Administrator, NRC Region IV
T. P. Gwynn, Director, Division of Reactor Projects,
NRC Region IV
K. E. Perkins, Jr., Director, Walnut Creek Field Office,
NRC Region IV
J. A. Sloan, NRC Senior Resident Inspector, San Onofre
Units 2 & 3
M. B. Fields, NRC Project Manager, San Onofre Units 2 & 3
Institute of Nuclear Power Operations (INPO)

9704290012 970413
PDR ADOCK 05000341
S PDR



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 1 of 0 3					Page (3) 1 of 0 3	
Title (4) Missed Technical Specification Surveillance - Pressurizer Cooldown Rate																
EVENT DATE (5)			LER NUMBER (6)					REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)					
Month	Day	Year	Year	///	Sequential	///	Revision	Month	Day	Year	Facility Names				Docket Number(s)	
				///	Number	///	Number				None					
0 3	0 4	9 7	9 7	---	0 0 8	---	0 0	0 4	1 8	9 7						
OPERATING MODE (9) 5			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (11)													
POWER LEVEL (10) 0 0 0 //////////////////// //////////////////// ////////////////////			<input type="checkbox"/> 20.402(b)				<input type="checkbox"/> 20.405(c)				<input type="checkbox"/> 50.73(a)(2)(iv)				<input type="checkbox"/> 73.71(b)	
			<input type="checkbox"/> 20.405(a)(1)(i)				<input type="checkbox"/> 50.36(c)(1)				<input type="checkbox"/> 50.73(a)(2)(v)				<input type="checkbox"/> 73.71(c)	
			<input type="checkbox"/> 20.405(a)(1)(ii)				<input type="checkbox"/> 50.36(c)(2)				<input type="checkbox"/> 50.73(a)(2)(vii)				<input type="checkbox"/> Other (Specify in	
			<input type="checkbox"/> 20.405(a)(1)(iii)				<input checked="" type="checkbox"/> 50.73(a)(2)(i)				<input type="checkbox"/> 50.73(a)(2)(viii)(A)				Abstract below and	
			<input type="checkbox"/> 20.405(a)(1)(iv)				<input type="checkbox"/> 50.73(a)(2)(ii)				<input type="checkbox"/> 50.73(a)(2)(viii)(B)				in text)	
			<input type="checkbox"/> 20.405(a)(1)(v)				<input type="checkbox"/> 50.73(a)(2)(iii)				<input type="checkbox"/> 50.73(a)(2)(x)					
LICENSEE CONTACT FOR THIS LER (12)																
Name R. W. Krieger, Vice President, Nuclear Generation										TELEPHONE NUMBER AREA CODE 7 1 4 3 6 8 - 6 2 5 5						
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																
CAUSE	SYSTEM	COMPONENT	MANUFAC-	REPORTABLE	////////	CAUSE	SYSTEM	COMPONENT	MANUFAC-	REPORTABLE	////////					
			TURER	TO NPRDS	////////				TURER	TO NPRDS	////////					
					////////						////////					
					////////						////////					
SUPPLEMENTAL REPORT EXPECTED (14)												Expected Submission Date (15)		Month	Day	Year
<input type="checkbox"/> Yes (If yes, complete EXPECTED SUBMISSION DATE)												<input checked="" type="checkbox"/> NO				

On 3/4/97, plant operators were cooling Unit 2 from Mode 4 to Mode 5. A high cooldown rate was discovered by an NRC resident inspector who was monitoring pressurizer temperature in real-time on a networked personal computer in his office. The inspector notified the Control Room.

Technical Specification (TS) Surveillance Requirement (SR) 3.4.3.1.1 requires Edison to verify pressurizer heatup and cooldown rates are within limits once every 30 minutes during heatup and cooldown operations. Edison initially believed this TS SR was satisfied because a dedicated Operator was graphing the required data. Subsequently, on April 7, 1997, Edison and the NRC resident inspector concluded that this TS SR had not been satisfied because the Operator graphing the data did not verify the cooldown rate was within TS limits. Consequently, Edison is reporting this missed TS SR in accordance with 10CFR50.73(a)(2)(i).

The cause of the missed TS SR was the operator did not recognize that a real-time evaluation of plant data was required. Edison reviewed this event with all operating crews. The Operator performing the TS SR was coached regarding SR "verification". The procedure used for plotting and the verification requirement was revised to enhance the graphs and tables.

An engineering evaluation of the pressurizer vessel, surge line, surge line nozzle and spray nozzle determined that the components are acceptable for continued service. Therefore, the safety significance of this event is minimal.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

SAN ONOFRE NUCLEAR GENERATION STATION	DOCKET NUMBER	LER NUMBER	PAGE
UNIT 2	05000361	97-008-00	2 of 3

Plant: San Onofre Nuclear Generating Station Unit 2
Reactor Vendor: Combustion Engineering
Event Date: March 4, 1997
Event Time: 1530
Mode: 5, cold shutdown
Temperature: approximately 110 Deg. F
Pressure: approximately 120 PSIA

Background:

On March 4, 1997, plant operators (utility, licensed) were cooling Unit 2 from Mode 4 to Mode 5. At about 1430, the Control Room operators completed a pre-evolution briefing and, following approved operating instructions, began the process of collapsing the pressurizer [AB,PZR] steam bubble.

This process involved initiating auxiliary spray flow from the charging pumps [CB,P] (the reactor coolant pumps were stopped), turning off the pressurizer heaters, lowering pressurizer pressure, and raising pressurizer level. The pressurizer temperature and pressure were initially about 440 Deg. F and 300 psia, respectively. There was an expected surge of relatively cool Reactor Coolant System (RCS) water and pressurizer temperature decreased. However, the rate of temperature decrease was greater than anticipated. During the one hour period from 1430 to 1530, the pressurizer temperature decreased approximately 240 Deg. F.

Technical Specification (TS) Limiting Condition for Operation (LCO) 3.4.3.1.b limits the pressurizer cooldown to a maximum of 200 Deg. F in any one hour period. Action C.1 for this LCO, applicable in Mode 5, requires Edison to "[i]nitiate action to restore parameter(s) to within limits" immediately. This action was completed and plant operation was maintained in accordance with TS LCO 3.4.3.1.

This event was discovered by an NRC resident inspector, who was monitoring pressurizer temperature in real time on a networked personal computer in his office. The inspector notified the Control Room at about 1600. This was approximately the same time the temperature transient ended (when the pressurizer was filled solid).

Description of Event:

TS Surveillance Requirement (SR) 3.4.3.1.1 requires Edison to verify the pressurizer heatup and cooldown rates are within limits once every 30 minutes during heatup and cooldown operations. Edison initially believed this TS SR was satisfied because a dedicated Operator (utility, licensed) was graphing the required data. Subsequently, on April 7, 1997, Edison and the NRC resident inspector concluded that this TS SR had not been satisfied because the Operator graphing the data had not verified the cooldown rate was within TS limits. Consequently, Edison is reporting this missed TS SR in accordance with 10CFR50.73(a)(2)(i).

Cause of the Event:

This TS SR was missed because the operator did not recognize that SR 3.4.3.1.1 required a real-time evaluation of plant data to ensure compliance with the cooldown limits. The operator did not appreciate the significance of the temperature decrease between 30 minute plots during the planned cooldown nor recognize the potential for exceeding the 200 Deg. per hour limit.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

SAN ONOFRE NUCLEAR GENERATION STATION	DOCKET NUMBER	LER NUMBER	PAGE
UNIT 2	05000361	97-008-00	3 of 3

Corrective Actions:

The pressurizer cooldown transient was terminated when the pressurizer steam bubble was collapsed, at approximately the time of discovery.

Action C.2 of TS LCO 3.4.3.1.b requires Edison to "[d]etermine [the] Pressurizer is acceptable for continued operation" prior to entering Mode 4. An engineering evaluation of the transient confirmed the pressurizer was not adversely affected. See Additional Information, below.

Edison reviewed this event with all operating crews. The Operator who performed TS SR 3.4.3.1.1 was coached regarding the "verification" required by the SR.

Edison has improved the methodology for collapsing the pressurizer bubble to limit the insurge of cooler RCS water. The procedure has been revised to capture this new approach and to provide more user friendly graphs and tables for the plotting and verification process. The improved procedure proved to be very controlled and successful during subsequent collapsing of the pressurizer bubble.

Safety Significance:

An engineering evaluation of the pressurizer vessel, surge line, surge line nozzle and spray nozzle determined that the components are acceptable for continued service. See Additional Information, below. Therefore, the safety significance of this event is minimal.

Additional Information:

In the last three years, there have been no similar instances where Edison missed a TS SR by not completing a required evaluation of data collected during the SR.

The engineering evaluation of this pressurizer thermal transient is documented in a letter from J. L. Rainsberry (Edison) to the NRC, "Pressurizer Thermal Transient Fracture Toughness Evaluation", March 14, 1997.