

## LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)  
SAN ONOFRE NUCLEAR GENERATING STATION, UNIT 2DOCKET NUMBER (2)  
0 5 0 0 0 3 6 1PAGE (3)  
1 OF 0 2TITLE (4)  
IMPROPER LEVEL DETECTION FOR SPRAY CHEMICAL STORAGE TANK T105EVENT DATE (5)  
MONTH DAY YEAR  
0 9 2 7 8 5  
LER NUMBER (6)  
YEAR SEQ. NUMBER REV. NUMBER  
8 5 0 4 2 0 0  
REPORT DATE (7)  
MONTH DAY YEAR  
1 0 2 9 8 5  
OTHER FACILITIES INVOLVED (8)  
FACILITY NAMES  
UNIT 3  
DOCKET NUMBER(S)  
0 5 0 0 0 3 6 2OPERATING MODE (9)  
1  
POWER LEVEL (10)  
1 0 0  
THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)  
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) X 50.36(c)(2) 50.73(a)(2)(vii) OTHER (Specify in Abstract below and in Text, NRC Form 366A)  
20.405(a)(1)(iii) X 50.73(a)(2)(i) 50.73(a)(2)(viii)(A)  
20.405(a)(1)(iv) 50.73(a)(2)(ii) 50.73(a)(2)(viii)(B)  
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  
AREA CODE  
7 1 4 4 9 2 1 - 7 7 0 0

## COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC

## SUPPLEMENTAL REPORT EXPECTED (14)

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

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

On September 27, 1985, it was determined that an incorrect NaOH density value was being used for calibration of the level transmitters associated with the Spray Chemical Storage Tank for both Units 2 and 3 (2T105, 3T105). The calibration value used was 1.16 instead of the actual density of the NaOH fluid of 1.436.

A review of monthly surveillance data determined that the Unit 3 Spray Chemical Storage Tank has maintained the Technical Specification required level with the exception of one event reported in LER 83-054 (Docket No. 50-362). The Unit 2 surveillance data was reviewed and 4 occasions were noted when the Technical Specification levels were not satisfied.

Additionally, analyses show that an actual level of 36.17% (52.58% indicated level due to calibration error) would be required for the system to perform its safety function, and levels in excess of this have been maintained in the Spray Chemical Storage Tank for both Units. This is due to the conservatism of the Technical Specification required level. Therefore, this event is not considered to be safety significant.

Level Transmitters LT-0348-1 and LT-0349-2 in Unit 2 have been correctly calibrated. Level Transmitters LT-0348-1 and LT-0349-2 in Unit 3 are presently being recalibrated and will be completed prior to plant startup following refueling.

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LICENSEE EVENT REPORT (LER)  
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQ. NUMBER	REV. NUMBER			
SAN ONOFRE NUCLEAR GENERATING STATION, UNIT 2	0 5 0 0 0 3 6 1	8 5	- 0 4 2	- 0 0	0 2	OF	0 2

TEXT (If more space is required, use additional NRC Form 366A's) (17)

On September 27, 1985, it was determined that an incorrect NaOH density value was being used for calibration of the level transmitters (EIS Component Code LT) associated with the Spray Chemical Storage Tank (EIS System Code BE) for both Units 2 and 3 (2T105, 3T105). The calibration value used was 1.16 instead of the density of the NaOH fluid of 1.436. Because of this error, the level transmitters would indicate that T-105 is 100% full when the actual level was 74.48%. In addition, if the tank was dry, an incorrect level of 7.8% would be indicated.

Technical Specification Limiting Condition for Operation (LCO) 3.6.2.2 requires that the Spray Chemical Storage Tank contain 1456 gallons of between 40% and 44% by weight NaOH solution while in Modes 1, 2 and 3. A minimum level of 85% full is required to maintain the required 1456 gallons, with the exception that when the low level pump trip is defeated on the Spray Chemical Addition Pumps, a minimum level of 67% full is required.

The low level pump trips function at 5% indicated level. Because the low level pump trips would not have functioned because a dry tank provides a 7.8% indication, the minimum required Spray Chemical Storage Tank level would be 67% actual level (90.2% indicated level). A review of monthly surveillance data determined that the Unit 3 Spray Chemical Storage Tank has maintained the Technical Specification required level with the exception of one event reported in LER 83-054 (Docket No. 50-362). The Unit 2 surveillance data was reviewed and 4 occasions were noted when the Technical Specification 67% actual levels were not satisfied: 47% actual level (67% indicated level) on 10/02/82; and 65% actual level (88-89% indicated level) on 03/17/84, 04/14/84 and 07/08/85.

An engineering evaluation was completed to determine if the Iodine Removal System would have been within its design bases at the minimum level experienced. Calculations show that a 36.17% actual level (52.58% indicated level) would be required for the system to perform its safety function. Levels in excess of this have been maintained in the Spray Chemical Storage Tank. Therefore, this event is not considered to be safety significant.

Level Transmitters LT-0348-1 and LT-0349-2 in Unit 2 have been correctly calibrated. Level Transmitters LT-0348-1 and LT-0349-2 in Unit 3 are presently being recalibrated and will be completed prior to plant startup following refueling.

Our investigation determined that the incorrect density value had been obtained from an errant design calculation which was discovered and corrected prior to the system being released to SCE. However, the Instrument Calibration Data Card which is used by the technician for calibration information was not changed at that time. The procedures utilized by SCE since system acceptance would have required review by the appropriate personnel when the design calculation was corrected and the Instrument Calibration Data Card would have been revised as a result of this review.

The design calculations for all Safety-Related tank levels in Units 2 and 3 are being reviewed by SCE. As the calculation reviews are completed, the accuracy of all Instrument Calibration Data Cards and other calibration documentation for these tanks will be verified to ensure other inaccuracies of this type do not exist.



*Southern California Edison Company*

SAN ONOFRE NUCLEAR GENERATING STATION

P. O. BOX 128

SAN CLEMENTE, CALIFORNIA 92672

H. E. MORGAN  
STATION MANAGER

October 29, 1985

TELEPHONE  
(714) 368-6241

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

Subject: Docket No. 50-361  
30-Day Report  
Licensee Event Report No. 85-042  
San Onofre Nuclear Generating Station, Unit 2

Pursuant to 10 CFR 50.73(a)(2)(i)(B), this submittal provides the required 30-day written Licensee Event Report (LER) involving improper level detection for the Spray Chemical Storage Tank. Since this occurrence involved systems applicable to both Units 2 and 3, a single LER for Unit 2 is enclosed in accordance with NUREG-1022. Neither the health and safety of plant personnel nor the health and safety of the public was affected by this event.

If you require any additional information, please so advise.

Sincerely,

Enclosure: LER No. 85-042

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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