NRC Form 366
(9/83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
SAN ONOFRE NUCLEAR GENERATING STATION, UNIT 2	0 5 0 0 0 3 6 1	1 OF 0 2

TITLE (4)
SPENT FUEL STORAGE POOL SEAL

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQ. NUMBER	REV. NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
										0 5 0 0 0
1 0	0 2	8 4	8 4	0 6 0	0 0	1 1	0 2	8 4		0 5 0 0 0

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)					
POWER LEVEL (10)	1 0 0	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)	50.36(c)(2)	50.73(a)(2)(vii)	X	OTHER (Specify in Abstract below and in Text, NRC Form 366A)	
		20.405(a)(1)(iii)	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)		Informational Report	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)			

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
	AREA CODE
J. G. HAYNES, STATION MANAGER	7 1 4 — 4 9 2 - 7 7 0 0

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	
B	L F	C M P	A 5 4 4	N							

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 fifteen single-space typewritten lines) (16)

On October 2, 1984 at approximately 1030, with Unit 2 in Mode 1 at 100% power, the inflatable seals between the spent fuel storage pool (SFSP) and the spent fuel shipping container pit (SFSCP) partially deflated due to low service air pressure causing the water level in the spent fuel pool to drop from 27' 5 1/2" to 25' 10". At no time did the level in the SFSP drop below the 23' level of Technical Specification 3.9.11. At 1042, service air was restored and the seals reinflated. Since no fuel was in the SFSP at the time the event occurred, the Technical Specification was not applicable.

Corrective actions include: 1) Level in the SFSP was restored to normal; 2) A design change to provide a separate and redundant backup pressurization system to the seals will be installed prior to each seal's use as a liquid retaining boundary with irradiated fuel present; 3) Applicable procedures will be revised to reflect the upgraded system design; and 4) A surveillance of the system will be conducted once per shift when seals are used as a liquid retaining boundary with irradiated fuel present.

There was no loss of safety function because the SFSP is only required to be operable when irradiated fuel assemblies are in the SFSP.

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NRC Form 3
(9-83)

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 4	0 6 0	0 0	0 2 OF 0 2

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

On October 2, 1984, at 1005 with Unit 2 in Mode 1 at 100% power, a 220 kV system disturbance on the grid, not associated with the plant, caused system frequency at San Onofre Nuclear Generating Station to drop to 59.2 Hz. The frequency returned to normal after 10 minutes. This disturbance caused the nonsafety-related electric temporary service air compressor (EIIS Component Code CMP) to trip. The temporary service air compressors are being utilized until design modifications, in progress, can be completed. The design modifications will install permanent service air compressors, with increased capacity, as well as upgrade the installed permanent instrument air compressors. It is hypothesized that the low frequency caused an overload condition for the compressor motor (EIIS Component Code MO). One function of this air compressor is to provide air to the inflatable seals (EIIS Component Code SEAL) between the spent fuel storage pool (SFSP) (EIIS System ND) and the spent fuel shipping container pit (SFSCP) (EIIS System ND). The backup temporary diesel driven air compressor (EIIS Component Code CMP) failed to start and the resultant low service air pressure then allowed the seals between the SFSP and the SFSCP to partially deflate. Prior to the event, the SFSP was filled with water to a level which would correspond to 27' 5 1/2" above the top of the fuel assemblies. At approximately 1030, plant personnel in the Spent Fuel Building noted water flowing from the SFSP through the seals and into the SFSCP which was drained at the time. The level in the SFSP dropped to a minimum level of 25' 10". The event was terminated at 1042 when service air was restored and the seals were reinflated. The 1' 7 1/2" drop in SFSP level corresponds to approximately 20,000 gallons. The level in the SFSP remained above the 23' minimum level of Technical Specification 3.9.11. Since there was no fuel in the SFSP, the Technical Specification was not applicable.

The cause of this event was that the seal system was not designed against such a failure. To preclude recurrence, the following actions have been or will be taken: 1) The level in the SFSP was returned to normal; 2) A design change to provide a separate and redundant backup pressurization system to the seals will be installed prior to each seal's use as a liquid retaining boundary with irradiated fuel present; 3) Applicable procedures will be revised to reflect the upgraded system design; and 4) A surveillance of the system will be conducted once per shift when seals are used as a liquid retaining boundary with irradiated fuel present. A complete description of SCE actions is provided in the SCE response to IE Bulletin 84-03.

In absence of this initiating event, the investigation necessary to respond to IE Bulletin 84-03, which came to the attention of plant personnel subsequent to the incident, would have resulted in the same corrective actions discussed herein. Although, as discussed above, there are no reasonable or credible circumstances under which this event would have been more severe, seal leakage, due to failure of the pressurization systems, can result in draining of the SFSP to below Technical Specification limits and below SFSP cooling system intake suction piping.

We have concluded that there was no safety significance to the event because there was no irradiated fuel in the pool and actions were initiated by SCE to provide a redundant pressurization system prior to each seal's use as a liquid retaining boundary with irradiated fuel present.

Southern California Edison Company

SAN ONOFRE NUCLEAR GENERATING STATION
P.O. BOX 128
SAN CLEMENTE, CALIFORNIA 92672

J. G. HAYNES
STATION MANAGER

TELEPHONE
(714) 492-7700

November 2, 1984

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

Subject: Docket No. 50-361
Informational Report
Licensee Event Report No. 84-060
San Onofre Nuclear Generating Station, Unit 2

This submittal provides an informational Licensee Event Report (LER) for an occurrence involving the spent fuel storage pool seal. Neither the health and safety of plant personnel nor the public were affected by this event.

If you require any additional information, please so advise.

Sincerely,

JGHaynes

Enclosure: LER No. 84-060

cc: F. R. Huey (USNRC Senior Resident Inspector, Units 1, 2 and 3)
J. P. Stewart (USNRC Resident Inspector, Units 2 and 3)

J. B. Martin (Regional Administrator, NRC Region V)

Institute of Nuclear Power Operations (INPO)

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