

## REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

SUBJECT: LER 88-035-00:on 881216,plant operation above 102% estimated  
actual power due to degradation of feedwater flow venturi.  
W/8 ltr.

NOTES:

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# 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				Page (3) 1 of 0 1	
Title (4) PLANT OPERATION ABOVE 102% ESTIMATED ACTUAL POWER DUE TO DEGRADATION OF FEEDWATER FLOW VENTURI															
EVENT DATE (5)			LER NUMBER (6)				REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)					
Month	Day	Year	Year	Sequential Number	Revision Number	Month	Day	Year	Facility Names			Docket Number(s)			
1   2	1   6	8   8	8   8	0   3   5	0   0	0   1	1   6	8   9	NONE			0   5   0   0   0   1			
OPERATING MODE (9)			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (11)												
POWER LEVEL (10) 1   0   0			<div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> 20.402(b)  <input type="checkbox"/> 20.405(a)(1)(i)  <input type="checkbox"/> 20.405(a)(1)(ii)  <input type="checkbox"/> 20.405(a)(1)(iii)  <input type="checkbox"/> 20.405(a)(1)(iv)  <input type="checkbox"/> 20.405(a)(1)(v)             </div> <div style="width: 50%;"> <input type="checkbox"/> 20.405(c)  <input type="checkbox"/> 50.36(c)(1)  <input type="checkbox"/> 50.36(c)(2)  <input type="checkbox"/> 50.73(a)(2)(i)  <input checked="" type="checkbox"/> 50.73(a)(2)(ii)  <input type="checkbox"/> 50.73(a)(2)(iii)             </div> <div style="width: 50%;"> <input type="checkbox"/> 50.73(a)(2)(iv)  <input type="checkbox"/> 50.73(a)(2)(v)  <input type="checkbox"/> 50.73(a)(2)(vii)  <input type="checkbox"/> 50.73(a)(2)(viii)(A)  <input type="checkbox"/> 50.73(a)(2)(viii)(B)  <input type="checkbox"/> 50.73(a)(2)(x)             </div> <div style="width: 50%;"> <input type="checkbox"/> 73.71(b)  <input type="checkbox"/> 73.71(c)  <input type="checkbox"/> Other (Specify in Abstract below and in text)             </div> </div>												
LICENSEE CONTACT FOR THIS LER (12)															
Name H. E. Morgan, Station Manager										TELEPHONE NUMBER AREA CODE 7   1   4   3   6   8   -   6   2   4   1					
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						
X	S   J	F   E	V   1   1   0	Y											
SUPPLEMENTAL REPORT EXPECTED (14)															
<input checked="" type="checkbox"/> Yes (If yes, complete EXPECTED SUBMISSION DATE) <input type="checkbox"/> NO										Expected Submission Date (15)	Month	Day	Year		
										0   3	1   5	8   9			
ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)															

On December 16, 1988, with Unit 2 at 100% power, after having developed a new methodology for approximating reactor power and applying it to plant historical data, it was determined that Unit 2 had operated at an estimated actual power in excess of 102% for a portion of the period between October 1983 and January 1984 (as reported in a letter to the NRC dated 12/30/88). At that time, an evaluation of this condition concluded that actual power had remained below 102%; however, the recent application of the new methodology to this period resulted in the conclusion that 102% was probably exceeded. The new methodology, which utilizes data from plant operation independent from secondary calorimetric inputs, had been developed as a result of a recent occurrence involving operation above 100% estimated actual power (see LER 88-028). An evaluation of the safety significance of this event is continuing. A supplemental report will be submitted to the NRC upon its completion.

The cause of plant operation at an estimated actual power greater than 102% was the degradation of one of the feedwater flow venturi pressure taps, which resulted in a decreased differential pressure sensed across the venturi. This condition resulted in a decrease in indicated feedwater flow (and therefore indicated reactor power) relative to actual feedwater flow (actual power). The subsequent gradual increase in actual plant power to maintain 100% indicated power resulted in estimated actual power exceeding 102%. The flow venturi was repaired in 1984 and subsequently replaced with a newer design in 1985.

No other instances of operation above 102% estimated actual power were identified from the review of Unit 2 and Unit 3 historical power data. The new methodology will continue to be applied to current plant operational data on a routine basis to further reduce the probability of operation above 100% actual power.

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January 16, 1989

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

Subject: Docket No. 50-361  
30-Day Report  
Licensee Event Report No. 88-035  
San Onofre Nuclear Generating Station, Unit 2

Pursuant to 10 CFR 50.73(a)(2)(ii), this submittal provides the required 30-day written Licensee Event Report (LER) for an occurrence involving secondary calorimetrics used to determine reactor power. This event had no effect on the health and safety of either plant personnel or the public.

If you require any additional information, please so advise.

Sincerely,

*H. E. Morgan*

Enclosure: LER No. 88-035

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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