

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Rancho Seco Nuclear Generating Station, Unit No. 1	DOCKET NUMBER (2) 0 5 0 0 0 3 1 2	PAGE (3) 1 OF 0 2
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TITLE (4)
Spurious Closure of DHR Dropline Isolation Valve

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)	
08	08	85	85	016	00	09	05	85	None	0 5 0 0 0	
										0 5 0 0 0	

OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)									
POWER LEVEL (10)		20.402(b)		20.406(c)		50.73(a)(2)(iv)		73.71(b)			
		20.406(a)(1)(i)		50.36(c)(1)	X	50.73(a)(2)(v)		73.71(c)			
		20.406(a)(1)(ii)		50.36(c)(2)		50.73(a)(2)(vii)		OTHER (Specify in Abstract below and in Text, NRC Form 366A)			
		20.406(a)(1)(iii)		50.73(a)(2)(i)		50.73(a)(2)(viii)(A)					
		20.406(a)(1)(iv)		50.73(a)(2)(ii)		50.73(a)(2)(viii)(B)					
		20.406(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(ix)					

LICENSEE CONTACT FOR THIS LER (12)		TELEPHONE NUMBER	
NAME	AREA CODE		
Ron W. Colombo, Regulatory Compliance Supervisor	9 1 6	4 5 2 1 3 2 1 1	

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

ABSTRACT (Limit to 1400 spaces, approximately fifteen single space typewritten lines) (16)

On August 8 and August 14, 1985 while the plant was in cold shutdown, the Decay Heat Removal (DHR) suction block valve (HV-20002) automatically closed on a high Reactor Coolant System (RCS) pressure signal, thus resulting in a temporary loss of the DHR system capability. In both cases, DHR flow was re-established in eleven (11) minutes or less, and no noticeable increases in the incore temperatures were detected.

HV-20002 is designed to close automatically when the RCS pressure exceeds 255 psig. The RCS pressure recorded by operations personnel at the time of the events was approximately 230 psig. Although no definite reason for the valve closures was determined, an investigation of the events indicated that voltage spikes on pressure transmitter PT-21099 circuitry caused the block valve to close. PT-21099 was replaced and calibrated during the recent refueling outage and a maintenance test was performed following the events to ensure the proper operability of the decay heat valve interlock and associated instrumentation.

A recorder has been installed to continuously monitor the output of PT-21099 while the DHR system is operable. In a recurrence of the event the transmitter output recording would be used to identify the source of the voltage spike.

There were no effects on public or plant safety as a result of this event.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMS NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1)

DOCKET NUMBER (2)

LER NUMBER (5)

PAGE (3)

Rancho Seco Nuclear Generating
Station, Unit No. 1YEAR SEQUENTIAL
NUMBER NUMBERREVISION
NUMBER

0 5 0 0 0 3 1 2 8 5 - 0 1 1 6 - 0 0 0 2 OF 0 2

TEXT (If more space is required, use additional NRC Form 388A-2) (17)

On August 8 and August 14, 1985 while the plant was in cold shutdown, the Decay Heat Removal (DHR) suction block valve (HV-20002) automatically closed on a high Reactor Coolant System (RCS) pressure signal. This resulted in the "A" DHR pump tripping and a loss of DHR cooling. In both cases DHR flow was re-established in eleven (11) minutes or less, and no noticeable increases in the incore temperatures were detected. The events were reported to the District's Regulatory Compliance Group via the internal Occurrence Description Report and are being submitted as event reports in accordance with 10 CFR 50.73(a)(2)(v).

HV-20002 is a motor operated valve located in the decay heat removal drop line which is closed during plant operation and must be opened to initiate decay heat removal operation. HV-20002 is interlocked with Core Flooding Tank isolation valve HV-26514 and with RCS pressure transmitter PT-21099 to help provide decay heat removal pump suction header overpressure protection in conjunction with the DHR system relief valves. The DHR system design pressure is 300 psig. RCS transmitter PT-21099, located off the "B" hotleg, provides a RCS pressure signal to the Safety Features Actuation System. Automatic closure of HV-20002 occurs when the RCS pressure exceeds 255 psig. The RCS pressure recorded by operation personnel at the time of the events was approximately 230 psig. Although no definite reason for the valve closures was determined, an investigation of the events indicated that voltage spikes on pressure transmitter PT-21099 circuitry caused the block valve to close. The source of the voltage spikes has not been identified. PT-21099 was replaced (as a result of IE Bulletin 79-01B) and calibrated during the recent refueling outage. Also, following the events, maintenance test I.2028, "Decay Heat Valve Interlock Channel B", was successfully performed to ensure the proper operability of the decay heat valve interlock and associated instrumentation.

To identify the source of the voltage spikes, a recorder has been installed to monitor the output of PT-21099 while the DHR system is operable. In the case of a recurrence of the event, the continuous monitoring of the PT-21099 output would provide voltage frequency and amplitude information for use in identification of the source. Also the District's Incident Analysis Group will review the events for determination of a "root cause" leading to the events. If the results of the "root cause" review differ from the conclusions of this report, a supplemental report describing the results will be submitted.

There were no effects on public or plant safety as a result of this event.



SMUD

SACRAMENTO MUNICIPAL UTILITY DISTRICT □ 6201 S Street, P.O. Box 15830, Sacramento CA 95852-1830, (916) 452-3211
AN ELECTRIC SYSTEM SERVING THE HEART OF CALIFORNIA

RJR 85-425


September 5, 1985

J B MARTIN REGIONAL ADMINISTRATOR
REGION V OFFICE OF INSPECTION AND ENFORCEMENT
ATTN DOCUMENT CONTROL DESK
U S NUCLEAR REGULATORY COMMISSION
WASHINGTON DC 20555

DOCKET NO. 50-312
LICENSE NO. DPR-54
LICENSEE EVENT REPORT NUMBER 85-16

In accordance with the requirements of 10 CFR 50.73(a)(2)(v), the Sacramento Municipal Utility District hereby submits Licensee Event Report Number 85-16.

If there are any questions concerning this report, please contact Mr. Ron Colombo at the Rancho Seco Nuclear Generating Station Unit No. 1.


R J RODRIGUEZ
ASSISTANT GENERAL MANAGER
NUCLEAR

Attachment

cc: Region V (2)
INPO

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