

CATEGORY 10

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9908170073 DOC. DATE: 99/08/12 NOTARIZED: NO DOCKET #
 FACIL: 50-275 Diablo Canyon Nuclear Power Plant, Unit 1, Pacific Ga 05000275
 AUTH. NAME AUTHOR AFFILIATION
 RUSSELL, R. Pacific Gas & Electric Co.
 OATLEY, D.N. Pacific Gas & Electric Co.
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 99-005-00: on 990713, noted that SDM calculation was not performed with one hour as required by TS 4.1.1.1.1a. Caused by personnel error. Surveillance testing was performed & rod control sys was declared inoperable. With 990812 ltr.

DISTRIBUTION CODE: IE22T COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 7
 TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR ENCL
	LPD4-2 PD	1 1	BLOOM, S	1 1
INTERNAL:	ACRS	1 1	FILE CENTER	1 1
	NRR/DIPM/IOLB	1 1	NRR/DRIP/REXB	1 1
	NRR/DSSA/SPLB	1 1	RES/DET/ERAB	1 1
	RES/DRAA/OERAB	1 1	RGN4 FILE 01	1 1
EXTERNAL:	L ST LOBBY WARD	1 1	LMITCO MARSHALL	1 1
	NOAC POORE, W.	1 1	NOAC QUEENER, DS	1 1
	NRC PDR	1 1	NUDOCS FULL TXT	1 1

NOTE TO ALL "RIDS" RECIPIENTS:
 PLEASE HELP US TO REDUCE WASTE. TO HAVE YOUR NAME OR ORGANIZATION REMOVED FROM DISTRIBUTION LISTS OR REDUCE THE NUMBER OF COPIES RECEIVED BY YOU OR YOUR ORGANIZATION, CONTACT THE DOCUMENT CONTROL DESK (DCD) ON EXTENSION 415-2083

FULL TEXT CONVERSION REQUIRED
 TOTAL NUMBER OF COPIES REQUIRED: LTR 16 ENCL 16

C
A
T
E
G
O
R
Y
1
D
O
C
U
M
E
N
T



W



**Pacific Gas and
Electric Company**

David H. Oatley
Vice President—Diablo Canyon
Operations and Plant Manager

Diablo Canyon Power Plant
P.O. Box 56
Avila Beach, CA 93424

805.545.6000

August 12, 1999

PG&E Letter DCL-99-107

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

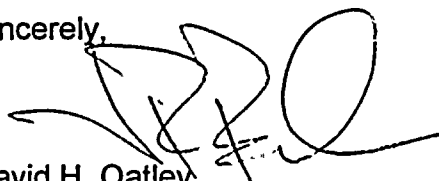
Docket No. 50-275, OL-DPR-80
Diablo Canyon Unit 1
Licensee Event Report 1-1999-005-00
Technical Specification 4.1.1.1.1a, Not Met Due to Personnel Error

Dear Commissioners and Staff:

PG&E is submitting the enclosed licensee event report regarding Technical Specification 4.1.1.1.1a not being met due to personnel error.

This event was not risk significant and did not adversely affect the health and safety of the public.

Sincerely,



FOR DHO

David H. Oatley

cc: Steven D. Bloom
Ellis W. Merschoff
David L. Proulx
Diablo Distribution
INPO

Attachment

DDM/2246/N0002100

170810

IEOS/1

9908170073 990812
PDR ADDCK 05000275
S PDR



LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Diablo Canyon Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 2 7 5	PAGE (3) 1 OF 6
--	---	---------------------------

TITLE (4)
Technical Specifications 4.1.1.1a, Not Met Due to Personnel Error

EVENT DATE (5)			LER NUMBER (6)				REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)			
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MO	DAY	YEAR	FACILITY NAME		DOCKET NUMBER		
07	13	1999	1999	- 0 0 5	- 0 0	08	12	1999					

OPERATING MODE (9) 1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR: (11) <input checked="" type="checkbox"/> 10 CFR 50.73(a)(2)(i)(B) <input type="checkbox"/> OTHER _____ (SPECIFY IN ABSTRACT BELOW AND IN TEXT, NRC FORM 368A)
POWER LEVEL (10)	
1 0 0	

LICENSEE CONTACT FOR THIS LER (12)

Roger Russell - Senior Regulatory Services Engineer	TELEPHONE NUMBER
	AREA CODE 805 545-4327

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

SUPPLEMENTAL REPORT EXPECTED (14) <input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE)	EXPECTED SUBMISSION DATE (15)	MON	DAY	YR
<input checked="" type="checkbox"/> NO				

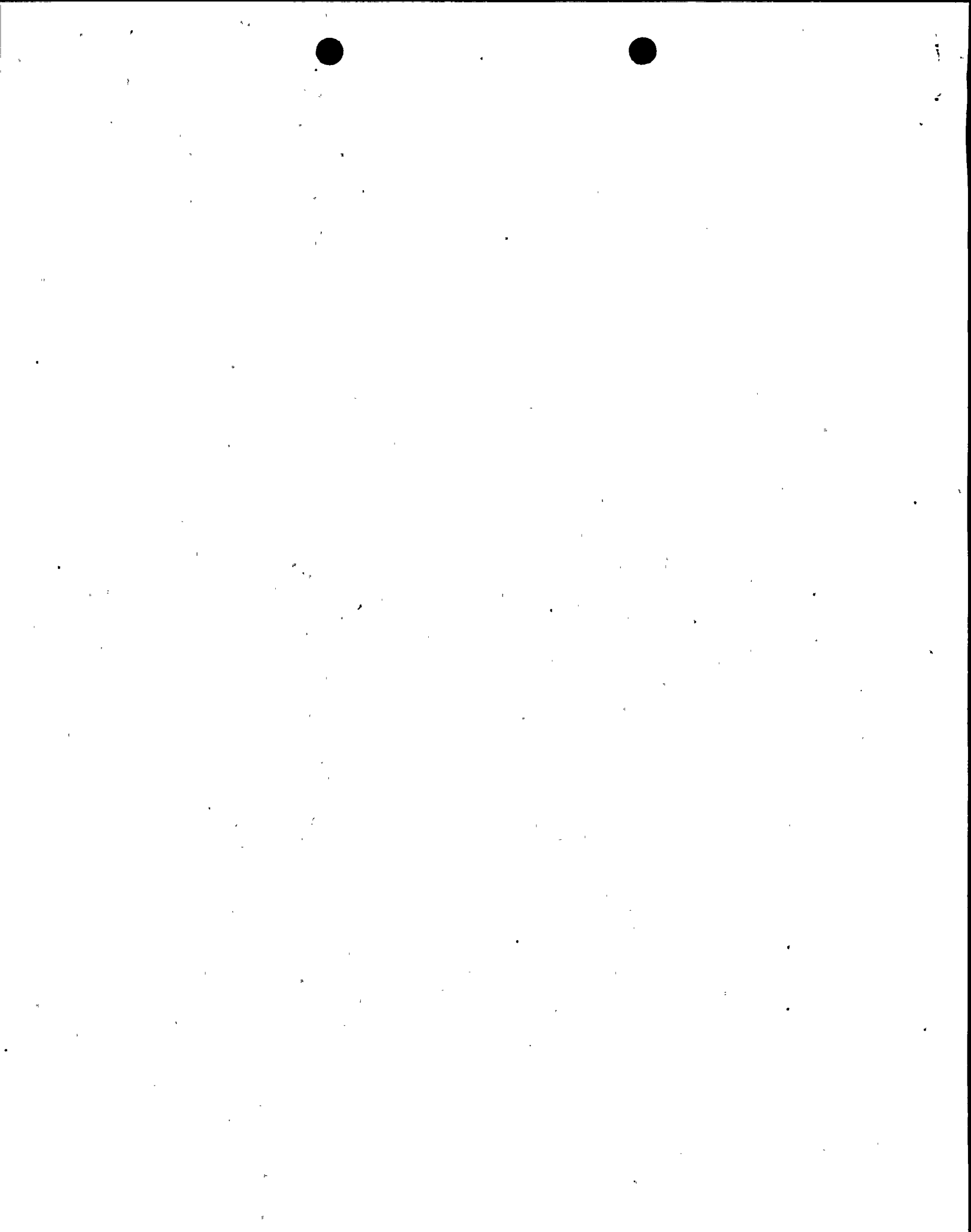
ABSTRACT (Limit to 1400 spaces. I.e., approximately 15 single-spaced typewritten lines.) (16)

On July 13, 1999, at 1930 PDT, with Unit 1 in Mode 1 (Power Operation) at 100 percent power, Technical Specification (TS) 3.1.1.1 "Shutdown Margin - Modes 1-2," was not met when a shutdown margin (SDM) calculation was not performed within 1 hour as required by TS 4.1.1.1a. At 1830 PDT, plant operators had declared the rod control system inoperable and entered the limiting condition for operation for TS 3.1.3.1c.

On July 16, 1999, at 0146 PDT, following planned corrective maintenance, plant operators satisfactorily performed surveillance testing and declared the rod control system operable, exiting TSs.

Plant operators failed to identify that a SDM calculation was required with an inoperable rod control system due to ambiguity in TS 3.1.3.1c.

PG&E will provide guidance to plant operators to perform a SDM calculation whenever TS 3.1.3.1c is entered. Additionally, all plant operators will be counseled regarding management's expectations to perform a thorough and complete review of TS to ensure that all applicable surveillances are properly completed.



LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)								LER NUMBER (6)						PAGE (3)				
									YEAR	SEQUENTIAL NUMBER				REVISION NUMBER					
Diablo Canyon Unit 1	0	5	0	0	0	2	7	5	1999	-	0	0	5	-	0	0	2	OF	6

TEXT

I. Plant Conditions

Unit 1 was in Mode 1 (Power Operation) at approximately 100 percent power.

II. Description of Problem

A. Summary

On July 13, 1999, at 1930 PDT, with Unit 1 in Mode 1 at 100 percent power, Technical Specification (TS) 3.1.1.1 "Shutdown Margin - Modes 1-2," was not met when a shutdown margin (SDM) calculation was not performed within 1 hour as required by TS 4.1.1.1.a. At 1830 PDT, plant operators declared the rod control system (AA) inoperable and entered the limiting condition for operation for TS 3.1.3.1.c.

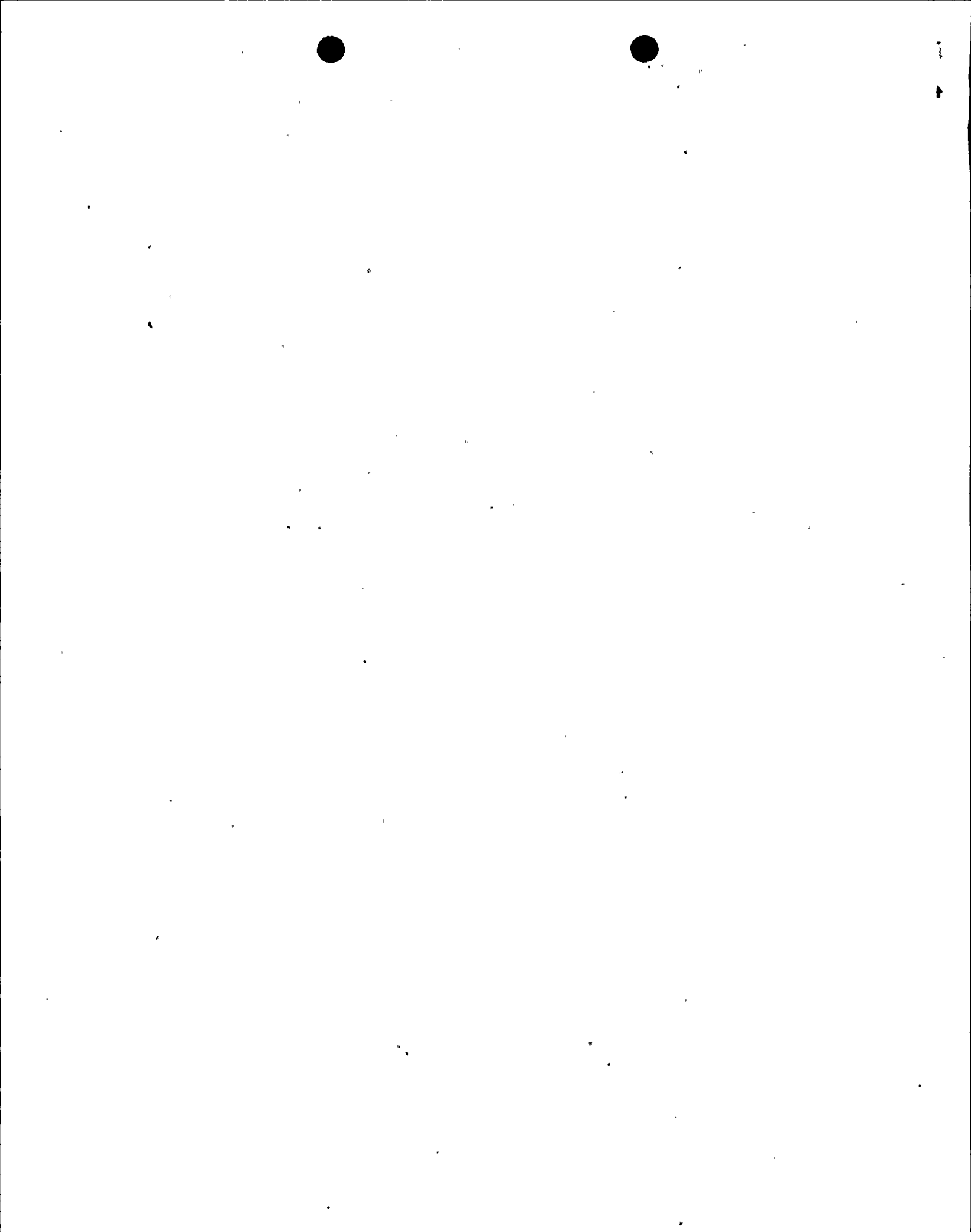
On July 16, 1999, at 0146 PDT, following planned corrective maintenance, plant operators satisfactorily performed surveillance testing and declared the rod control system operable, exiting TSs.

B. Background

The rod control system (AA) is a nonsafety-related system to move the rods into and out of the reactor core to control reactivity in response to measured reactor coolant parameters or manual demand input. The system sequentially operates stationary and movable grippers for each rod to control speed and direction of rod movement. The rod control system is self-monitored and will initiate an urgent failure alarm if significant abnormalities are detected. Removal of a power cabinet card results in an urgent alarm input that prevents rod motion.

An urgent failure alarm does not indicate a problem with the safety-related function of tripping the reactor. The rod control system cannot prevent the safety-related function of reactor trip which actuates by removing motive power from the rod control mechanisms allowing the rods to fall by gravity into the core.

TS 3.1.1.1, "Boration Control, Shutdown Margin - Tavg Greater than 200°F," TS 4.1.1.1.a, requires the shutdown margin be determined to be greater than or equal to 1.6 percent $\Delta k/k$ "within 1 hour after detection of an inoperable control rod(s) and at least once per



LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)						PAGE (3)				
		YEAR	SEQUENTIAL NUMBER			REVISION NUMBER			OF	PAGE		
Diablo Canyon Unit 1	0 5 0 0 0 2 7 5	1999	-	0	0	5	-	0	0	3	OF	6

TEXT

12 hours thereafter while the rod(s) is inoperable." Performing Surveillance Test Procedure (STP) R-19, "Shutdown Margin Determination," meets this requirement. Additionally, STP I-1A, "Routine Shift Checks Required by Licenses," is performed each shift (each 12 hours), to confirm that the reactor systems were being maintained within limits prescribed by TS.

TS 3.1.3.1, "Movable Control Assemblies, Group Height," Action c, with more than one full-length rod trippable but inoperable, does not include a reference to the perform the TS 4.1.1.1.1a SDM calculation within 1 hour.

The current TS are consistent with NUREG-0452, standardized technical specifications (STS), revision 4. Improved technical specifications (ITS) consistent with NUREG-1431 were approved by license amendment (LA) 135, with an implementation date of May 30, 2000.

C. Event Description

On July 13, 1999, at 1830 PDT, plant operators observed control room indication of unwarranted movement of rod control group D stepping two steps into the core and received a rod control system urgent failure alarm. Plant operators placed the rod control system in manual mode in accordance with plant annunciator response procedures. Plant operators declared the rod control system inoperable, but trippable and entered TS 3.1.3.1, Action c.

On July 13, 1999, at 1930 PDT, the 1 hour allowed to perform TS 4.1.1.1.1a, with the rod control system inoperable, but trippable, was not met.

On July 15, 1999, at 0120 PDT, plant operators in the control room were informed by system engineers working on the rod control system that the rod insertion limit monitor alarm may be affected by troubleshooting activities. Plant operators initiated a conditional surveillance satisfying TS.

On July 15, 1999, at 2131 PDT, plant operators reviewed STP R-19 SDM calculation as completed and exited TS 4.1.1.1.1a.



LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)					PAGE (3)					
		YEAR	SEQUENTIAL NUMBER			REVISION NUMBER	PAGE	OF				
Diablo Canyon Unit 1	05000275	1999	-	0	0	5	-	0	0	4	OF	6

TEXT

On July 15, 1999, at 2218 PDT, plant operators and maintenance personnel conducted a formal tailboard detailing the rod control system restoration activities.

On July 16, 1999, at 0034 PDT, following planned maintenance, plant operators successfully reset the rod control system failure alarm.

On July 16, 1999, at 0126 PDT, plant operators restored the control rod system in automatic with all alarms cleared.

On July 16, 1999, at 0146 PDT, plant operators satisfactorily performed STP R-1A, "Exercising Full Length Control Rods," declared the rod control system operable, and exited TS 3.1.3.1c.

D. Inoperable Structures, Components, or Systems that Contributed to the Event

The automatic and manual modes of rod position control instrumentation were inoperable, but rods remained trippable.

E. Dates and Approximate Times for Major Occurrences

1. July 13, 1999, at 1830 PDT: Plant operators declared the rod control system inoperable.
2. July 13, 1999, at 1930 PDT: TS 4.1.1.1.1a was not met.
3. July 15, 1999, at 2131 PDT: STP R-19 SDM calculation was completed, exiting TS 4.1.1.1.1a.
4. July 16, 1999, at 0126 PDT: Rod control restored to automatic mode.
5. July 16, 1999, at 0146 PDT: STP R-1A was completed, exiting TS 3.1.3.1c.

F. Other Systems or Secondary Functions Affected

None.



LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)						PAGE (3)				
		YEAR	SEQUENTIAL NUMBER			REVISION NUMBER						
Diablo Canyon Unit 1	0 5 0 0 0 2 7 5	1999	-	0	0	5	-	0	0	5	OF	6

TEXT

G. Method of Discovery

The event was immediately known to licensed plant operators due to alarms and indications received in the control room.

H. Operator Actions

Plant operators responded to alarms and indications in the control room, placed the rod control system in manual, and initiated actions to perform troubleshooting and repair of the rod control system.

I. Safety System Responses

None.

III. Cause of the Problem

A. Immediate Cause

TS 4.1.1.1a conditional surveillance was not properly identified following declaration of the rod control system inoperable.

B. Root Cause

The cause of the shutdown margin not being met was ambiguity in TS 3.1.3.1.c and its relationship to the TS 4.1.1.1.a. This led to the failure of the on-shift Operations crew to perform a SDM calculation within one hour.

IV. Analysis of the Event

The satisfactory performance of STP R-19 SDM calculation confirmed that reactivity control was assured during this event. The successful routine (each 12 hours) completion of STP I-1A confirmed that the reactor systems were being maintained within prescribed limits. Therefore, the missed surveillance is not considered risk significant and did not adversely affect the health and safety of the public.



1
2

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)						PAGE (3)				
		YEAR	SEQUENTIAL NUMBER			REVISION NUMBER						
Diablo Canyon Unit 1	0 5 0 0 0 2 7 5	1999	-	0	0	5	-	0	0	6	OF	6

TEXT

V. Corrective Actions

A. Immediate Corrective Actions

A formal tailboard was conducted between Maintenance and Operations prior to completion of corrective maintenance actions.

B. Corrective Actions to Prevent Recurrence

1. Guidance will be provided to plant operators regarding implementing TS 4.1.1.1a whenever TS 3.1.3.1c is entered until ITS are implemented. ITS limiting condition for operation for TS 3.1.4 addresses this issue.

2. All plant operators will be counseled regarding management's expectations regarding a thorough and complete review of applicable TS actions to ensure that all applicable surveillances are properly identified and completed.

VI. Additional Information

A. Failed Components

PG&E maintenance technicians could not identify a specific rod control system failure that led to this event; however, several discrete component cards were replaced as a conservative measure.

B. Previous Similar Events

LER 1-1998-006, reported a TS 3.0.3 entry due to a failure of the DRPI system group A power supply. The DRPI control selector switch was repositioned during immediate troubleshooting actions as provided by plant procedures resulting in the brief loss of position indication of two the reactor control rods. This event was reviewed and found to be consistent with plant procedures to investigate and isolate the failed component(s). Therefore, PG&E determined that no additional corrective actions were necessary. As no corrective actions were required or taken, the lessons learned from this LER would not have prevented this event.



100