ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:8910200066 DOC.DATE: 89/10/10 NOTARIZED: NO DOCKET #
FACIL:50-275 Diablo Canyon Nuclear Power Plant, Unit 1, Pacific Ga 05000275
AUTH.NAME AUTHOR AFFILIATION
MENDONCA,M. Region 5, Ofc of the Director
NARBUT,P. Region 5, Ofc of the Director
RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: PNO-V-89-059:on 891006,reactor trip & safety injection from 100% power due to instrumentation problems.

DISTRIBUTION CODE: IE34D COPIES RECEIVED:LTR 0 ENCL 1 SIZE: 2
TITLE: Preliminary Notification-Occurrence/Non-Routine Event/Safeguards Even

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL
INTERNAL:	ACRS/SIESS	1	1	AEOD/DSP/TPAB	1	1
	NRC OP CNTR	1	1	NRR/DRIS/SGB 9A	1	1
	NRR/DRIS/SIB 9A	1	1	NRR/DRIS/VIB	1	1
	NRR/PMAS/ILRB12	1	1	NUDOCS-ABSTRACT	1	1
	OE DIR	1	1	REG FILE 02	1	1
	RES BROOKS,B	1	1	RES DE	1	1
	RES FILE	1	1	RES/DE	1	1
	RES/DRA	1	1	RES/DSIR	1	1
	RES/DSIR/EIB	1	1	RES/DSR DEPY	1	1
	RES/PMPDAS	1	1	RGN5 FILE 01	1	1
EXTERNAL:	DOE BARBER EV34	1	1	LPDR	1	1
	NRC PDR	1	1	NSIC	1	1

A0-4

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK, ROOM P1-37 (EXT. 20079) TO ELIMINATE YOUR NAME FROM DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTTR ~~24~~ 6 ENCL 24

cc

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE--PNO-V-89-59 Date 10/10/89

This preliminary notification constitutes EARLY notice of events of POSSIBLE safety or public interest significance. The information presented is as initially received without verification or evaluation and is basically all that is known by Region V staff on this date.

FACILITY: PACIFIC GAS & ELECTRIC COMPANY
DIABLO CANYON UNIT 1
DOCKET NO. 50-275
SAN LUIS OBISPO COUNTY, CA

Emergency Classification
XX Notification of Unusual Event
___Alert
___Site Area Emergency
___General Emergency
___Not Applicable

SUBJECT: REACTOR TRIP AND SAFETY INJECTION FROM 100% POWER DUE TO INSTRUMENTATION PROBLEMS

On October 6, 1989 at 1:02 pm (PDT), Diablo Canyon Unit 1 experienced a reactor trip and steam line differential pressure safety injection. The unit had been at continuous power for a Westinghouse, U.S.A. record setting 399 days prior to the event and was conducting multiple pre-outage work tasks, while at power, in preparation for a scheduled shutdown for refueling on October 14, 1989. The pre-outage work being conducted contributed at least in part to the event and to some subsequent complications in recovery.

Prior to the event, initial plant conditions included steam flow and steam pressure bistables in a tripped condition (for one of four protection set logics). The bistables were tripped to allow performance of a calibration of the channels to gather data for a feedwater control design modification (the channel calibration was not due). Additionally, two of the four atmospheric steam dump valves were isolated in preparation for routine testing of their control circuits to ensure correct operation for the upcoming shutdown scheduled in about one week.

The event occurred at a time when I&C technicians were physically closing the isolation valve for one of the pressure transmitter which provides the control signal for one of the atmospheric steam dump valves which were to receive this routine testing for the pending plant shutdown. This transmitter does not provide the safeguards signal, but shares a common pressure tap on the main steamline and is physically adjacent to a safeguards steam pressure transmitter (an adjacent panel). It is speculated that the repositioning of this valve initiated a false pressure spike on the steamline pressure instrumentation which when combined with other channels in trip gave the necessary coincidence for safety injection/reactor trip. The event sequence showed a reactor trip and safety injection at 1:02 pm. The licensee has tried to recreate the condition, but has not been able to reproduce the trip signal.

All safety systems actuated normally. Operators responded promptly in accordance with plant procedures. The resident inspectors were in the control room immediately after the trip and monitored plant status and operator actions. Several complications were appropriately responded to by operators:

The unit lost both circulating water pumps (the seawater for condenser cooling). Only one circulating water pump should be lost per design. Hence, the steam dumps valves to the condenser were prevented from opening. The licensee's investigation subsequently revealed a timer relay failure caused the trip of the circulating water pump.

IE-34

During the recovery process, at 1:08 pm a rapid increase of RCS pressure was experienced. At 1:10 pm a pressurizer power operated relief valve lifted due to rapidly increasing pressurizer pressure. Initial indication are that it lifted at a lower pressure than it should have, by about 85 psi. The control circuit for this valve is capable of a floating setpoint which may have caused the lift at the lower pressure.

At about 1:30 pm operators attempted to open the two in-service atmospheric steam dumps. Neither valve responded to initial manual demands (cause still unknown). At 1:35 pm a second attempt to open the atmospheric steam dumps was made and one valve opened. At 1:48 pm the two out-of-service atmospheric dumps were returned to service and appropriately opened. The licensee verified the correct operation of all, similar Unit 2 atmospheric steam dump valves.

At 1:22 pm a circulating water pump was manually restarted to reestablish condenser vacuum. At 2:11 pm cooldown was transferred to the condenser steam dumps, and at 2:30 pm the plant was stable in Mode 3 and the Unusual Event was terminated.

The licensee has decided to begin the scheduled refueling outage early and not attempt restart. The licensee formed a comprehensive event response plan to determine the cause of the event and corrective actions for the event and the complicating factors. The residents will continue to monitor licensee investigations and corrective actions.

There has been some media interest.

This information is current as of 10:00 am on October 10, 1989.

CONTACT: M. Mendonca, RV
FTS 463-3720

P. Narbut
805-595-2354

DISTRIBUTION BY 5520:
Date_____Time_____

Chairman Carr	EDO	RI
Comm. Roberts	AEOD	RII
Comm. Rogers	PAO	RIII
Comm. Curtiss	SLITP	RIV
	NRR	
CA	NMSS	
OGC	ARM	
ACRS	OI	
GPA	OIA	
SECY	RES	

FAX TO:
Date_____Time_____

INPO
NSAC
LICENSEE
RESIDENT INSPECTOR
HQS. OPERATIONS OFFICER
PDR

MAIL TO:
DCS (Original)
DOT:(Trans. Only, Applicable State)

RV FORM 211
Revised: 8/19/87