Power Reactor Event # 42459

Site: DIABLO CANYON		**Notification Date / Time:** 03/31/2006	16:01 (EST)
Unit: 2 **Region:** 4 **State :** CA		**Event Date / Time:** 03/31/2006	11:50 (PST)
Reactor Type: [1] W-4-LP,[2] W-4-LP		**Last Modification:** 03/31/2006	
Containment Type: DRY AMB DRY AMB			
NRC Notified by: DAVE TAGGERT		**Notifications:** DALE POWERS	R4
HQ Ops Officer: JEFF ROTTON		OMID TABATABAI	NRR
Emergency Class: NON EMERGENCY			
10 CFR Section:			
21.21 UNSPECIFIED PARAGRAPH			

Unit	Scram Code	RX Crit	Init Power	Initial RX Mode	Curr Power	Current RX Mode
2	N	Yes	100	Power Operation	100	Power Operation

DEFECTIVE RHR CHECK VALVE

"In accordance with 10 CFR 21.21(d)(1), Pacific Gas and Electric (PG&E) is hereby notifying the NRC of a defective component received from Flowserve, Flow Control Division, in Raleigh, NC, but not installed at Diablo Canyon Power Plant (DCPP). The component is an 8-inch tilting disk check valve that was procured for installation in the Residual Heat Removal (RHR) System during the Unit 2 refueling outage (2R13) scheduled to begin on 04/17/06.

"On 03/02/06, the defect was identified at DCPP during post-receipt bench testing and involved incorrect disc dimensions that caused the disc to stick in the valve bonnet (i.e., in the open position). This would have prevented the valve from performing its intended safety function of closing to prevent pump-to-pump interaction when both RHR pumps are running. (These check valves were installed in response to NRC Bulletin 88-04, 'Potential Safety Related Pump Loss.') Failure of this check valve, had it been installed, could have resulted in the loss of one RHR train on Unit 2, which could impact the ability to shut down the reactor and maintain it in a safe shutdown condition.

" On 03/08/06, PG&E notified Flowserve of the defect via Supplier Audit Finding Report #060670010 and requested corrective actions be taken.

"On 03/13/06, Flowserve concluded that the defect was caused by disc design error and test procedure error.

"On 03/16/06, Flowserve initiated Quality Problem Corrective Action Plan #169, in which they concluded a Part 21 evaluation was not required.

"On 03/31/06, PG&E Vice President, Diablo Canyon Operations and Station Director, [deleted], determined that the defect met 10 CFR 21.21 reporting requirements.

IE19

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"PG&E initiated purchase of the 600 lb, stainless steel check valve on 06/02/05, and does not know whether any others have been manufactured by Flowserve. The valve was manufactured in accordance with Vendor Assembly Drawing W902:3267 and ASME Section III, Subsection NC, 1989 Edition.

"PG&E subsequently repaired the check valve in accordance with instructions provided in a Flowserve letter to PG&E, dated 03/16/06. The valve has passed inspection and bench testing and will be installed during 2R13."

The licensee notified the NRC Resident Inspector.

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NRC FORM 361 (12-2000)

U.S. NUCLEAR REGULATORY COMMISSION
OPERATIONS CENTER
EN # 42459

REACTOR PLANT EVENT NOTIFICATION WORKSHEET

NRC OPERATION TELEPHONE NUMBER: PRIMARY – 301-816-5100 OR 800-532-3469*, BACKUPS – [1*] 301-951-0550 or 800-449-3694*, [2*] 301-415-0550 and [3*] 301-415-0553 *Licensees who maintain their own ETS are provided these telephone numbers.

NOTIFICATION TIME	FACILITY OR ORGANIZATION	UNIT	NAME OF CALLER	CALL BACK #
13:0 / PST	Diablo Canyon Power Plant	2	Dave Taggart	805-545-4201

EVENT TIME & ZONE	EVENT DATE	POWER/MODE BEFORE	POWER/MODE AFTER
11:50 PST	03/31/2006	100% / Mode 1	100% / Mode 1

EVENT CLASSIFICATION		1-Hr. Non-Emergency 10 CFR 50.72(b)(1)			60-Day Optional 10 CFR 50.73(a)(1)	
☐ GENERAL EMERGENCY	GEN/AAEC	☐	TS Deviation	ADEV	☐ (v)(A) Safe S/D Capability	AINA
☐ SITE AREA EMERGENCY	SIT/AAEC	4-Hr. Non-Emergency 10 CFR 50.72(b)(2)			☐ (v)(B) RHR Capability	AINB
☐ ALERT	ALE/AAEC	☐ (i)	TS Required S/D	ASHU	☐ (v)(C) Control of Rad Release	AINC
☐ UNUSUAL EVENT	UNU/AAEC	☐ (iv)(a)	ECCS Discharge to RCS	ACCS	☐ (v)(D) Accident Mitigation	AIND
☐ 50.72 NON-EMERGENCY	(see next columns)	☐ (iv)(B)	RPS Actuation (scram)	ARPS	☐ (xii) Offsite Medical	AMED
☐ PHYSICAL SECURITY (73.71)	DDDD	☐ (xi)	Offsite Notification	APRE	☐ (xiii) Loss Comm/Asmt/Resp	ACOM
☐ MATERIAL/EXPOSURE	B???	8-Hr. Non-Emergency 10 CFR 50.72 (b)(3)			☐ Invalid Specified System Actuation	AINV
☐ FITNESS FOR DUTY	HFIT	☐ (ii)(A)	Degraded Condition	ADEG	Other Unspecified Requirements (Identify)	
☒ OTHER UNSPECIFIED REQMT	(see last column)	☐ (ii)(B)	Unanalyzed Condition	AUNA	☒ 21.21(d)(1)	NONR
☐ INFORMATION ONLY	NNF	☐ (iv)(A)	Specified System Actuation	AESF	☐ Other	NONR

DESCRIPTION

Include: Systems affected, actuations and their initiating signals, causes, effect of event on plant, actions taken or planned, etc. (Continue on back)

In accordance with 10 CFR 21.21(d)(1), Pacific Gas and Electric (PG&E) is hereby notifying the NRC of a defective component received from Flowserve, Flow Control Division, in Raleigh, NC, but not installed at Diablo Canyon Power Plant (DCPP). The component is an 8-inch tilting disk check valve that was procured for installation in the Residual Heat Removal (RHR) System during the Unit 2 refueling outage (2R13) scheduled to begin on 04/17/06.

On 03/02/06, the defect was identified at DCPP during post-receipt bench testing and involved incorrect disc dimensions that caused the disc to stick in the valve bonnet (i.e., in the open position). This would have prevented the valve from performing its intended safety function of closing to prevent pump-to-pump interaction when both RHR pumps are running. [These check valves were installed in response to NRC Bulletin 88-04, "Potential Safety-Related Pump Loss."] Failure of this check valve, had it been installed, could have resulted in the loss of one RHR train on Unit 2, which could impact the ability to shut down the reactor and maintain it in a safe shutdown condition.

On 03/08/06, PG&E notified Flowserve of the defect via Supplier Audit Finding Report #060670010 and requested corrective actions be taken.

On 03/13/06, Flowserve concluded that the defect was caused by disc design error and test procedure error.

On 03/16/06, Flowserve initiated Quality Problem Corrective Action Plan #169, in which they concluded a Part 21 evaluation was not required.

On 03/31/06, PG&E Vice President, Diablo Canyon Operations and Station Director, James Becker, determined that the defect met 10 CFR 21.21 reporting requirements.

PG&E initiated purchase of the 600 lb, stainless steel check valve on 06/02/05, and does not know whether any others have been manufactured by Flowserve. The valve was manufactured in accordance with Vendor Assembly Drawing W9023267 and ASME Section III, Subsection NC, 1989 Edition.

PG&E subsequently repaired the check valve in accordance with instructions provided in a Flowserve letter to PG&E, dated 03/16/06. The valve has passed inspection and bench testing and will be installed during 2R13.

Dave Taggart
Manager, Quality Verification
Diablo Canyon Power Plant
P.O. Box 56
Avila Beach, CA 93424

NOTIFICATIONS	YES	NO	WILL BE	ANYTHING UNUSUAL OR NOT UNDERSTOOD?	☐ YES (Explain above)	☒ NO
NRC RESIDENT	☒	☐	☐			
STATE(s)	☐	☒	☐	DID ALL SYSTEMS FUNCTION AS REQUIRED?	☒ YES	☐ NO
LOCAL	☐	☒	☐			
OTHER GOV AGENCIES	☐	☒	☐	MODE OF OPERATION UNTIL CORRECTED	ESTIMATED RESTART DATE	ADDITIONAL INFO ON BACK: ☐ YES ☒ NO
MEDIA/PRESS RELEASE	☐	☒	☐			