



**Pacific Gas and
Electric Company®**

James M. Welsch
Station Director

Diablo Canyon Power Plant
Mail Code 104/5/502
P. O. Box 56
Avila Beach, CA 93424

805.545.3242
Internal: 691.3242
Fax: 805.545.4234
Internet: JMW1@pge.com

June 13, 2013

PG&E Letter DCL-13-063

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

Docket No. 50-323, OL-DPR-82
Diablo Canyon Unit 2
Inservice Inspection Report for Unit 2 Seventeenth Refueling Outage

In accordance with ASME Code Section XI, Paragraph IWA-6240(b), enclosed is the Diablo Canyon Power Plant Unit 2 Seventeenth Refueling Outage Inservice Inspection (ISI) Report. This report provides the results of our ISI examination of Class 1 and 2 components and supports. Also included is a listing of the preservice inspection items and the ASME Code Report Form NIS-2 reports for Class 1, 2 and 3 repair/replacement activities completed since the last Unit 2 refueling outage report submittal.

There are no new or revised regulatory commitments (as defined by NEI 99-04) in this report.

If you have any questions regarding the information enclosed, or other ISI program activities, please contact Mr. Patrick Nugent, Manager, Technical Support Engineering, at (805) 545-4701.

Sincerely,


James M. Welsch

wrl8/6980/64055282

Enclosure

cc/encl: Thomas R. Hipschman, NRC Senior Resident Inspector
Arthur T. Howell, III, NRC Region IV
James T. Polickoski, NRC Senior Project Manager
State of California, Pressure Vessel Unit

Enclosure
PG&E Letter DCL-13-063

Pacific Gas and Electric Company

Diablo Canyon Power Plant

Inservice Inspection Report for the Unit 2 Seventeenth Refueling Outage

Diablo Canyon Power Plant


Unit 2

USNRC Docket No. 50-323

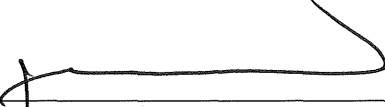
Operating License No. DPR-82

Commercial Operation Date, March 13, 1986

Prepared By: _____


Thomas L. Alcott, ISI Specialist

Reviewed By: _____


James Hill, Lead ISI Specialist

Approved By: _____


Patrick Nugent, Manager Technical Support Engineering

This report is submitted as required by ASME Boiler and Pressure Vessel Code, Section XI, to the United States Nuclear Regulatory Commission.

Document Date: 5/20/2013

Pacific Gas and Electric Company
77 Beale Street, San Francisco, CA 94106

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

TABLE OF CONTENTS

<u>SECTION</u>	<u>TITLE</u>
A.	Introduction
B.	ASME Code Report Form NIS-1 (Basis of Summary)
	1. Class 1
	2. Class 2
C.	Class 1 Components
	1. Vessels
	a. Reactor Vessel
	b. Pressurizer
	2. Bolting
	3. Pumps
	4. Welded Attachments
	5. Piping
	6. Supports
D.	Class 2 Components
	1. Vessels
	a. Steam Generators
	b. Heat Exchangers
	2. Piping
	3. Welded Attachments
	4. Supports
E.	Containment (IWE / IWL) Exams
F.	System Pressure Tests
G.	Containment Penetration - Appendix J
H.	Preservice Inspection Items
I.	Repairs and Replacements
	1. ASME Code Report Form NIS-2 (Indexed by System) (Class-1, 2 & 3) (Manufacturers' Data Reports for 'New Items' are attached behind the applicable NIS-2)

SECTION A
INTRODUCTION

SECTION A

INTRODUCTION

Inservice inspection (ISI) of scheduled ASME Section XI components and their supports at Pacific Gas and Electric Company's Diablo Canyon Power Plant (DCPP) Unit 2 was completed during the seventeenth refueling outage from February to March, 2013.

The DCPP Unit 2 seventeenth refueling outage (2R17) was the second outage in the second period within the third 10-year ISI interval.

2R17 exams were scheduled and performed as required by ASME XI, 2001 Edition thru 2003 addenda, as modified by 10CFR 50.55a.

This report is submitted as required by ASME Section XI, paragraph IWA-6240, and is organized in several sections. This introduction is Section A. Section B contains the completed ASME Code Report Form NIS-1 for Class 1 and 2 components. Sections C, and D, detail the Class 1 and 2 examinations performed, date of examination (for group items or for more than one type of examination performed, the date provided is the most recent examination date), any unusual conditions noted, corrective actions if required, and explanatory remarks.

Containment (IWE / IWL) exams are reported in section E

System pressure tests on Class 1 and 2 systems conducted during the period following Unit 2 sixteenth refueling outage (2R16), up to and through 2R17, are reported in Section F.

Appendix J, Containment penetration pressure tests are reported in Section G.

Preservice inspections were performed on certain components, as required after repairs or replacements. These items are detailed in Section H.

Section I of this report, Repairs and Replacements (Class 1, 2 & 3), contains the completed ASME Code Report Form NIS-2 for those 2R17 work packages closed prior to or on April 22, 2013 and for any work packages closed after July 05, 2011. NIS-2 reports for 2R17 work packages that are closed after April 22, 2013 will be included in the next outage report. Corrective action and Order package documentation are on file at DCPP and are referenced by Order number in the NIS-2 reports.

Manufacturers' Data Reports for 'New Items' are attached behind the applicable NIS-2.

SECTION B

ASME CODE REPORT FORM NIS-1

FORM NIS-1 OWNER'S REPORT FOR INSERVICE INSPECTIONS
As required by the Provisions of the ASME Code Rules

1. Owner Pacific Gas & Electric Company, 77 Beale St., San Francisco, CA 94106
2. Plant Diablo Canyon Power Plant, P.O. Box 56, Avila Beach, CA 93424
3. Plant Unit Two 4. Owner Certificate of Authorization (if required) N/A
5. Commercial Service Date 03/13/86 6. National Board Number for Unit N/A
7. Component Inspected ASME Code Class 1 Items

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	State or Province No.	National Board No.
Reactor Vessel	Combustion Engineering/ Westinghouse	CE 68101	12962-85	21359
Pressurizer	Westinghouse	1171	N/A	68-106
Class 1 Pumps RCP 2-1	Westinghouse	711	N/A	N/A
Class 1 Piping	M.W. Kellogg/ Pullman	N/A	N/A	N/A
Class 1 Supports	M.W. Kellogg/ Pullman	N/A	N/A	N/A

Note: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 ½ in. x 11 in., (2) information in items 1 through 6 on this data report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-1 (back)

8. Examination Dates 02/13 to 03/13
9. Inspection Period Identification: Second
10. Inspection Interval Identification: Third
11. Applicable Edition of Section XI 2001 Addenda 2002 - 2003
12. Date/Revision of Inspection Plan: December 2011, Revision 1
13. Abstract of Examinations and Tests. Include a list of examinations and tests and a statement concerning status of work required for current interval. Refer to ISI Report
14. Abstract of Results of Examinations and Tests. Refer to ISI Report
15. Abstract of Corrective Measures. Refer to ISI Report

We certify that a) the statements made in this report are correct, b) the examinations and tests meet the Inspection Plan as required by the ASME Code, Section XI, and, c) corrective measures taken conform to the rules of the ASME Code, Section XI.

Certificate of Authorization No. (if applicable) N/A Expiration Date N/A

Date 6/3/13 Signed PG&E By Patrick Nugent
 Owner Engineering Manager

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California and employed by HSB-CT of Harford, CT have inspected the components described in this Owners' Report during the period 7/2011 to 4/2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and tests and taken corrective measures described in this Owners' Report in accordance with the Inspection Plan and as required by the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and tests, and corrective measures described in this Owners' Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Kenny Kim Commissions CA 1828, NB 9990 A.N.I.C.
 Inspector's Signature/Kenny Kim National Board, State, Province and, Endorsements.

Date 6-3-2013

FORM NIS-1 OWNER'S REPORT FOR INSERVICE INSPECTIONS
As required by the Provisions of the ASME Code Rules

1. Owner Pacific Gas & Electric Company, 77 Beale St., San Francisco, CA 94106
2. Plant Diablo Canyon Power Plant, P.O. Box 56, Avila Beach, CA 93424
3. Plant Unit Two 4. Owner Certificate of Authorization (if required) N/A
5. Commercial Service Date 03/13/86 6. National Board Number for Unit N/A
7. Components Inspected ASME Code Class 2 Items

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	State or Province No.	National Board No.
Class 2 Piping	M.W. Kellogg/ Pullman	N/A	N/A	N/A
Class 2 Piping Supports	Various	N/A	N/A	N/A
Steam Gen 2-1	Westinghouse / ENSA	SG2-1/DC2RSG-1 / 1PA2	N/A	94 / 142
U2 Containment Bolted Connections	Pittsburgh - Des Moines Steel & PG&E	N/A	N/A	N/A
U2 Containment Liner	PG&E	N/A	N/A	N/A
RHR Heat Exchanger 2-1	Engineers and Fabricators Co.	S-15588-C	N/A	1112

Note: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 ½ in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-1 (back)

8. Examination Dates 2/2013 to 3/2013
9. Inspection Period Identification: Second
10. Inspection Interval Identification: Third
11. Applicable Edition of Section XI 2001 Addenda 2002 - 2003
12. Date/Revision of Inspection Plan: December, 2011, Revision 1
13. Abstract of Examinations and Tests. Include a list of examinations and tests and a statement concerning status of work required for current interval. Refer to ISI Report
14. Abstract of Results of Examinations and Tests. Refer to ISI Report
15. Abstract of Corrective Measures. Refer to ISI Report

We certify that a) the statements made in this report are correct, b) the examinations and tests meet the Inspection Plan as required by the ASME Code, Section XI, and, c) corrective measures taken conform to the rules of the ASME Code, Section XI.

Certificate of Authorization No. (if applicable) N/A Expiration Date N/A

Date 6/3/13 Signed PG&E By Patrick Nugent
 Owner Engineering Manager

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California and employed by HSB-CT of Harford, CT have inspected the components described in this Owners' Report during the period 7/2011 to 4/2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and tests and taken corrective measures described in this Owners' Report in accordance with the Inspection Plan and as required by the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and tests, and corrective measures described in this Owners' Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Kenny Kim Commissions CA 1828, NB 9990 A.N.I.C.
 Inspector's Signature/Kenny Kim National Board, State, Province and, Endorsements.

Date 6-3-2013

SECTION C

CLASS 1 COMPONENTS

Pacific Gas and Electric Company

DIABLO CANYON POWER PLANT - UNIT 2

SERVICE DATE: 03/13/86

THIRD INTERVAL, SECOND PERIOD, SECOND REFUELING OUTAGE REPORT (2R17)

MAJOR ITEM: VESSEL

REACTOR PRESSURE VESSEL (RPV)

ASME SECTION XI SYSTEMS - CLASS 1

PAGE 1 of 1

CATEGORY ITEM	DESCRIPTION	COMPONENT / LINE	WELD OR COMPONENT NO.	EXAM TYPE	EXAM DATE	COMMENTS	RESULTS
------------------	-------------	---------------------	--------------------------	--------------	--------------	----------	---------

Augmented

	RPV Lower Head BMI Visual Exam	RPV2	RPV Lower Head / BMI Visual Exam	VT	3-15-13	Remote / Crawler exam	NRI
	RPV Hot Leg Nozzle-to-Pipe Connections	RPV2	Hot Leg Nozzle-to- Pipe Connections	VT	2-05-13		NRI

PG&E

DIABLO CANYON POWER PLANT - UNIT 2
 SERVICE DATE: 03/13/86

THIRD INTERVAL, SECOND PERIOD, FIRST REFUELING OUTAGE REPORT (2R17)

MAJOR ITEM: PRESSURIZER

ASME SECTION XI SYSTEMS - CLASS 1

PAGE 1 of 1

CATEGORY ITEM	DESCRIPTION	COMPONENT / LINE	WELD OR COMPONENT NO.	EXAM TYPE	EXAM DATE	COMMENTS	RESULTS
B-D							
B3.110	Safety Line Nozz to Vessel Weld	Pzr 2 to 2S6-729-6SPL	WIB-368 (N-V)	UT	2/18/13	65.2% Coverage. Examined 2R14, re-examined during 2R17 with smaller transducers to improve coverage.	NRI

PG&E

DIABLO CANYON POWER PLANT - UNIT 2

SERVICE DATE: 03/13/86

THIRD INTERVAL, SECOND PERIOD, FIRST REFUELING OUTAGE REPORT (2R17)

MAJOR ITEM: BOLTING

ASME SECTION XI SYSTEMS - CLASS 1

PAGE 1 of 1

CATEGORY ITEM	DESCRIPTION	COMPONENT / LINE	WELD OR COMPONENT NO.	EXAM TYPE	EXAM DATE	COMMENTS	RESULTS
B-G-1							
B6.180	RCP 2-1 Main Flange Bolts	Pump Bolting > 2" diam.	RCP 2-1 Bolts 1-24	UT	2-08-13		NRI

PG&E

DIABLO CANYON POWER PLANT - UNIT 2
SERVICE DATE: 03/13/86

THIRD INTERVAL, SECOND PERIOD, FIRST REFUELING OUTAGE REPORT (2R17)

MAJOR ITEM: PUMPS

ASME SECTION XI SYSTEMS - CLASS 1

PAGE 1 of 1

CATEGORY		COMPONENT / LINE	WELD OR COMPONENT NO.	EXAM TYPE	EXAM DATE	COMMENTS	RESULTS
ITEM	DESCRIPTION						

Augmented

RCP 2-2 Flywheel UT Exam	RCP 2-2 Flywheel	RCP 2-2 Flywheel Inner Half Radius	UT	2-23-13		NRI
-----------------------------	------------------	---------------------------------------	----	---------	--	-----

PG&E

DIABLO CANYON POWER PLANT - UNIT 2
SERVICE DATE: 03/13/86

THIRD INTERVAL, SECOND PERIOD, FIRST REFUELING OUTAGE REPORT (2R17) MAJOR ITEM: WELDED ATTACHMENTS

ASME SECTION XI SYSTEMS - CLASS 1

PAGE 1 of 1

CATEGORY		COMPONENT / LINE	WELD OR COMPONENT NO.	EXAM TYPE	EXAM DATE	COMMENTS	RESULTS
ITEM	DESCRIPTION						

B-K

	SIS to RCS Lp 1 HL: Welded Att.	2S6-2575-8	70-38SL	PT	2-19-13		NRI
	RHR Pp 2-1 Inj CL 1: Welded Att.	2S6-3844-6SPL	92-41V	PT	2-25-13		NRI
	RHR Pp 2-1 Inj CL 2: Welded Att.	2S6-3845-6SPL	71-5SL	PT	2-25-13		NRI

PG&E

DIABLO CANYON POWER PLANT - UNIT 2
SERVICE DATE: 03/13/86

THIRD INTERVAL, SECOND PERIOD, FIRST REFUELING OUTAGE REPORT (2R17) MAJOR ITEM: PIPING

ASME SECTION XI SYSTEMS - CLASS 1

PAGE 1 of 2

CATEGORY ITEM	DESCRIPTION	COMPONENT / LINE	WELD OR COMPONENT NO.	EXAM TYPE	EXAM DATE	COMMENTS	RESULTS
RI-ISI (RB)							
	Boron Inj Tk Out Loop 4 Cold	2S6-1994-1- 1/2SPL+	WIB-736-04	PT	2-15-13		NRI
	Boron Inj Tk Out Loop 4 Cold	2S6-1994-1- 1/2SPL+	WIB-735	PT	2-15-13		NRI
	Loop 1 Cold Leg RTD Conn	2S6-1140-2SPL	WIB-975H	PT	2-8-13		NRI
	Loop 2 RTD Manifold Ret Hdr	2S6-1147-3SPL	WIB-124A	UT	2-19-13		NRI
	Pressurizer PWR RV PCV 474	2S6-1171-3SPL+	WIB-410	UT	2-19-13		NRI
	Pressurizer PWR RV PCV 455C	2S6-1172-3SPL+	WIB-402	UT	2-19-13		NRI
	Pressurizer RV 8010B Inlet	2S6-728-6SPL+	WIB-425	UT	2-16-13		NRI
	Hot Leg Recirc Before V-8702	2S6-109-14SPL	WIB-251A	UT	2-26-13		NRI
	Accumulator Injection Loop 2	2S6-254-10SPL+	WIB-168	UT	2-18-13		NRI

PG&E

DIABLO CANYON POWER PLANT - UNIT 2

SERVICE DATE: 03/13/86

THIRD INTERVAL, SECOND PERIOD, FIRST REFUELING OUTAGE REPORT (2R17)

MAJOR ITEM: PIPING

ASME SECTION XI SYSTEMS - CLASS 1

PAGE 2 of 2

CATEGORY ITEM	DESCRIPTION	COMPONENT / LINE	WELD OR COMPONENT NO.	EXAM TYPE	EXAM DATE	COMMENTS	RESULTS
------------------	-------------	---------------------	--------------------------	--------------	--------------	----------	---------

Augmented (weld overlays)

Relief Request
REP-1 U2 Rev.1

Pressurizer RV 8010B Inlet	2S6-728-6SPL+	WIB-423/WIB- 423(SE) (OL)	UT	2-14-13	Fabrication flaws exceeding relief request acceptance criteria identified. Scope expanded per sub Article Q-4310	RI*
-------------------------------	---------------	------------------------------	----	---------	--	-----

Expanded Scope

Pressurizer RV 8010A Inlet	S6-729-6SPL+	WIB-369/WIB- 369(SE) (OL)	UT	2-21-13	Expanded scope	RI*
Pressurizer RV 8010C Inlet	2S6-727-6SPL+	WIB-359/WIB- 359(SE) (OL)	UT	2-22-13	Expanded scope	RI*
Pressurizer Power RV Inlet	S6-730-6SPL+	WIB-380/WIB- 380(SE) (OL)	UT	2-23-13	Expanded scope	NRI
Pressurizer Spray Line	2S6-15-4SPL	WIB-345/WIB- 345(SE) (OL)	UT	2-27-13	Expanded scope	RI*
Pressurizer Surge Line	2*-16-14SPL	WIB-438/WIB- 439(SE) (OL)	UT	2-27-13	Expanded scope	NRI

* Indications dispositioned in Relief Request REP-1 U2 Rev.2.
NRC verbal approval for single cycle implementation received on 3-08-13.
(ref TAC no MF0880)

SERVICE DATE: 03/13/86

THIRD INTERVAL, SECOND PERIOD, FIRST REFUELING OUTAGE REPORT (2R17)

MAJOR ITEM: SUPPORTS

ASME SECTION XI SYSTEMS - CLASS 1

PAGE 1 of 1

CATEGORY

F-A SUPPORTS

F1.10 TO F1.70 SUPPORT COMPONENTS

The required inservice inspections were performed on 1 Class 1 support during the seventeenth refueling outage between the dates of 02-05-13 and 02-05-13. Data reports are on file.

[illegible]

SECTION D
CLASS 2 COMPONENTS

PG&E

DIABLO CANYON POWER PLANT - UNIT 2
SERVICE DATE: 03/13/86

THIRD INTERVAL, SECOND PERIOD, FIRST REFUELING OUTAGE REPORT (2R17)

MAJOR ITEM: STEAM GENERATORS

ASME SECTION XI SYSTEMS - CLASS 2

PAGE 1 of 1

CATEGORY ITEM	DESCRIPTION	COMPONENT / LINE	WELD OR COMPONENT NO.	EXAM TYPE	EXAM DATE	COMMENTS	RESULTS
C-B							
C2.21	Nozzle-to-Shell Weld	RSG 2-1 to 2K16-554-16IV	Feedwater Nozzle- to-Shell Weld	MT	2-09-13		NRI
			Feedwater Nozzle- to-Shell Weld	UT	2-12-13	81.6% coverage (50033145 task 70)	NRI
			Nozzle Inside Radius Section	UT	2-25-13		NRI

PG&E

DIABLO CANYON POWER PLANT - UNIT 2
SERVICE DATE: 03/13/86

THIRD INTERVAL, SECOND PERIOD, FIRST REFUELING OUTAGE REPORT (2R17) MAJOR ITEM: HEAT EXCHANGERS

ASME SECTION XI SYSTEMS - CLASS 2

PAGE 1 of 1

CATEGORY ITEM	DESCRIPTION	COMPONENT / LINE	WELD OR COMPONENT NO.	EXAM TYPE	EXAM DATE	COMMENTS	RESULTS
C-A							
C1.10	Shell Circ.Welds	RHR Heat Exchanger 2-1	Girth Weld Item 21 (Shell-to-Flange)	VT-2	6-01-11	Code Case N-706-1 allows use of VT-2 in-lieu of PT exam.	NRI
C-B							
C2.21	Nozzle-to-Shell Weld	RHR HX 2-1 to 2S1-112-8	Inlet Nozzle- to-Shell Weld # 24	VT-2	6-01-11	Code Case N-706-1 allows use of VT-2 in-lieu of UT and PT exams.	NRI

PG&E

DIABLO CANYON POWER PLANT - UNIT 2

SERVICE DATE: 03/13/86

THIRD INTERVAL, SECOND PERIOD, FIRST REFUELING OUTAGE REPORT (2R17) MAJOR ITEM: PIPING

ASME SECTION XI SYSTEMS - CLASS 2

PAGE 1 of 1

CATEGORY ITEM	DESCRIPTION	COMPONENT / LINE	WELD OR COMPONENT NO.	EXAM TYPE	EXAM DATE	COMMENTS	RESULTS
RI-ISI (RB)	Res Ht Exchanger 1 Outlet	2S1-118-8III	WIC-57C	UT	1-29-13		NRI
			WIC-57G	UT	1-29-13		NRI
			WIC-57H	UT	1-29-13		NRI
	RHR Exchs Outlet Cross-Tie	2S1-2458-8III	WIC-125	UT	1-29-13		NRI
	RHR to SIS Pp 1- 2 & Cont Spr	2S1-735-8IIIP	WIC-269	UT	1-29-13		NRI
			WIC-270	UT	1-29-13		NRI
	RC Pps Barrier CCW Ret Hdr	2K17-1357-6	WIC-1357B	UT	2-14-13		NRI
			WIC-1357C	UT	2-14-13		NRI

PG&E

DIABLO CANYON POWER PLANT - UNIT 2

SERVICE DATE: 03/13/86

THIRD INTERVAL, SECOND PERIOD, FIRST REFUELING OUTAGE REPORT (2R17)

MAJOR ITEM:

ASME SECTION XI SYSTEMS - CLASS 2

WELDED ATTACHMENTS

PAGE 1 of 1

CATEGORY	COMPONENT /	WELD OR	EXAM	EXAM		
ITEM	DESCRIPTION	LINE	COMPONENT NO.	TYPE	DATE	RESULTS

C-C

C3.20	Stm Gen 2-3 Fw Welded Attach.	2K16-557-16IV	2042-9V Attachment	MT	2-16-13	NRI
	CCP 2-2 Seal Inj. Welded Attach.	2S6-1475-3	23-37R Attachment Lugs	PT	2-09-13	NRI
	Spray Hdrs 1 & 3 Welded Attach.	Line S2-2520-8	50-126A Attachment	PT	2/28/13	NRI

PG&E

DIABLO CANYON POWER PLANT - UNIT 2

SERVICE DATE: 03/13/86

THIRD INTERVAL, SECOND PERIOD, FIRST REFUELING OUTAGE REPORT (2R17)

MAJOR ITEM: PIPING SUPPORTS

ASME SECTION XI SYSTEMS - CLASS 2

PAGE 1 of 1

CATEGORY

F-A SUPPORTS

F1.10 TO F1.70 SUPPORT COMPONENTS

The required inservice inspections were performed on 41 Class 2 hangers during the seventeenth refueling outage between the dates of 1-31-13 and 3-03-13. Data reports are on file.

LINE	SUPPORT	LINE	SUPPORT	LINE	SUPPORT	LINE	SUPPORT
RHR Hx 2-1	2 Support Legs	226	413-252R	508	412-163R	1988	23-72R
RHR Hx 2-1	4 mid-level braces	262	947-3R	512	46-1V	2033	413-17R
RHR Hx 2-1	4 top-level braces	265	413-221R	557	2042-9V	2520	50-127R
48	24-47R	314	50-9V	569	413-406R	3844	71-1R ¹
48	413-73R	315	414-49R	571	413-296V	2520	50-126A
53	23-43R	316	414-285R	734	23-25R		
54	2216-19	317	8-16V	746	414-314R		
54	2216-5	318	50-12V	985	7-153R		
54	564-65	319	8-6V	1466	923-48		
110	47-140R	321	404-30R	1475	23-37R		
118	414-607R	322	73-16R	1663	77-7SL		
224	75-17R	322	414-399A	1982	413-539R		

¹ Notification # 50543918

SECTION E
CONTAINMENT EXAMS
(IWE / IWL)

PG&E

DIABLO CANYON POWER PLANT - UNIT 2

SERVICE DATE: 03/13/86

THIRD INTERVAL, SECOND PERIOD, FIRST REFUELING OUTAGE REPORT (2R17)

MAJOR ITEM: CONTAINMENT

ASME SECTION XI SYSTEMS, CONTAINMENT

PAGE 1 of 1

CATEGORY ITEM	DESCRIPTION	COMPONENT / LINE	WELD OR COMPONENT NO.	EXAM TYPE	EXAM DATE	COMMENTS	RESULTS
E-A							
E1.11	Containment Liner	Containment Liner	Containment Liner	General VT	3-17-13		NRI
	Penetration #58	Mini Equipment	12 Studs, 24 Nuts	General VT	3-04-13	Examined in assembled state	NRI
	Penetration #60	Mini Equipment	12 Studs, 24 Nuts	General VT	3-04-13	Examined in assembled state	NRI
	Penetration #63	Vacuum Pressure Relief	12 Bolts	General VT	3-04-13	Examined in assembled state	NRI
	Penetration #64	Fuel Transfer Tube	20 Bolts	General VT	2-04-13	All but 2 bolts examined in assembled state	NRI
	Equipment Hatch	Equipment Hatch	48 Bolts	VT-3	3-04-13	Examined in disassembled state Partial exam. (all but upper 12 bolts)	NRI

L-A None

SECTION F
PRESSURE TESTS

PG&E

DIABLO CANYON POWER PLANT - UNIT 2

SERVICE DATE: 03/13/86

THIRD INTERVAL, SECOND PERIOD, FIRST REFUELING OUTAGE REPORT (2R17)

MAJOR ITEM: PRESSURE TESTS

ASME SECTION XI SYSTEMS - CLASS 1, & 2

PAGE 1 of 3

TEST NO.	CLASS	DESCRIPTION	EXAM DATE	COMMENTS	RESULTS
1	1	Reactor Coolant System and Connected Piping	3-20-13	Outage Frequency, STP-R8A	NRI
2	1	Excess Letdown between 8166 & 8167	3-20-13	Outage Frequency, STP-R8A	NRI
3	1	Pressurizer Auxiliary Spray	3-20-13	Outage Frequency, STP-R8A	NRI
4	1	Alternate Charging	3-20-13	Outage Frequency, STP-R8A	NRI
5	1	RHR & SI to Cold Legs	3-20-13	Outage Frequency, STP-R8A	NRI
6	1	Charging Injection Inside Cont.	3-20-13	Outage Frequency, STP-R8A	NRI
7	1	Safety Injection Inside Cont, From 8905A-D to 8949A-D	3-20-13	Outage Frequency, STP-R8A	NRI
8	1	RHR Between 8702 & 8701	3-20-13	Outage Frequency, STP-R8A	NRI
--	1	RPV Flange Leak-off Lines	3-14-13	Outage Frequency, (partial 3-6-13)	NRI
1	2	Steam Generators and Connected Piping	6-04-11	Period-2 Exam	NRI
4	2	RCS Loops 1 & 4 Hot Leg Sample Lines	3-20-13	Period-2 Exam	NRI
5	2	Pressurizer Sample Lines	3-20-13	Period-2 Exam	NRI

PG&E

DIABLO CANYON POWER PLANT - UNIT 2
SERVICE DATE: 03/13/86

THIRD INTERVAL, SECOND PERIOD, FIRST REFUELING OUTAGE REPORT (2R17)

MAJOR ITEM: PRESSURE TESTS

ASME SECTION XI SYSTEMS - CLASS 1 & 2

PAGE 2 of 3

TEST NO.	CLASS	DESCRIPTION	EXAM DATE	COMMENTS	RESULTS
6	2	XS Ltdn HX & Piping from 8167 to HCV-123	3-20-13	Period-2 Exam	NRI
7	2	RCP Hi Press Seal Water Out & XS Ltdn HX Outlet Piping	10-12-12	Period-2 Exam	NRI
8	2	Charging Pumps Discharge Piping	1-23-13	Period-2 Exam	NRI
8a	2	Charging Pumps Discharge Piping between CVCS 929, CVCS 8387B, CVCS 8387C and CVCS 931	1-24-13	Period-2 Exam	NRI
10	2	Alt Charging Between 8483, 8147 & 8379A	3-20-13	Period-2 Exam	NRI
11	2	Charging Injection 8803A & B to 8801A & B	3-07-13	Period-2 Exam	NRI
13	2	Charging Pumps & Suction Piping	1-03-13	Period-2 Exam	NRI
14	2	Regenerative HX and Letdown Piping	10-12-12	Period-2 Exam	NRI
15	2	Boric Acid Pumps Disch Piping	2-06-13	Period-2 Exam	NRI
15a	2	Boric Acid Pumps Disch Piping Between 8104 and 8445	1-24-13	Period-2 Exam	NRI
16	2	Boric Acid Tanks to Pump Disch Iso Valves	10-03-12	Period-2 Exam	NRI
18	2	Accumulator, RHR & Charging Test Lines	3-07-13	Period-2 Exam	NRI
19	2	RWST & Supply to RHR, Cont Spray, SI, Refueling Wtr Purification Pumps & Recirc Line to RHR HX	1-08-13	Period-2 Exam	NRI
20	2	RWST Supply to Chg Pp Suction, 8805A & B to 8924	3-11-13	Period-2 Exam	NRI

PG&E

DIABLO CANYON POWER PLANT - UNIT 2
SERVICE DATE: 03/13/86
THIRD INTERVAL, SECOND PERIOD, FIRST REFUELING OUTAGE REPORT (2R17)
MAJOR ITEM: PRESSURE TESTS
ASME SECTION XI SYSTEMS - CLASS 1 & 2
PAGE 3 of 3

TEST NO.	CLASS	DESCRIPTION	EXAM DATE	COMMENTS	RESULTS
21	2	Safety Injection Pump Discharge to 8802A & B and Cold Legs	3-20-13	Period-2 Exam	NRI
23	2	RHR Pumps and Discharge Piping	3-09-13	Period-2 Exam	NRI
24	2	RHR Hot Leg injection from 8703 to 8740A & B	3-20-13	Period-2 Exam	NRI
25	2	Spray Additive Tank and Unisolable piping	1-07-13	Period-2 Exam	NRI
26	2	RWST Supply to Eductors	2-09-13	Period-2 Exam	NRI
41	2	Refueling Canal Water Inlet (pen 46)	2-12-13	Period-2 Exam	NRI
46	2	RHR Suction from RCS	3-03-13	Period-2 Exam	NRI
47	2	Refueling Canal Water Outlet (pen 47)	2-12-13	Period-2 Exam	NRI

SECTION G

Containment Penetration - Appendix J

Note: All Appendix J penetrations were performed during the Unit-2 fourteenth refueling outage (2R14).
The Appendix J penetrations listed here are only the penetrations that received an LLRT during 2R17.

PG&E

DIABLO CANYON POWER PLANT - UNIT 2
SERVICE DATE: 03/13/86
THIRD INTERVAL, SECOND PERIOD, FIRST REFUELING OUTAGE REPORT (2R17)
MAJOR ITEM: Containment Penetration
Appendix J
ASME SECTION XI SYSTEMS - CONTAINMENT
PAGE 1 of 1

PEN NO.	STP NO.	Results	EXAM DATE	PEN NO.	STP NO.	Results	EXAM DATE	PEN NO.	STP NO.	Results	EXAM DATE
20	V-620	Acceptable	2-26-13	54	V-654	Acceptable	2-14-13	78B	V-678	Acceptable	2-9-13
30	V-630	Acceptable	2-25-13	59A	V-659A	Acceptable	3-6-13	79	V-679	Acceptable	2-22-13
31	V-631	Acceptable	2-26-13	61	V-661	Acceptable	3-17-13	81	V-681	Acceptable	3-1-13
46	V-646	Acceptable	2-4-13	62	V-662	Acceptable	3-17-13	82A	V-682A	Acceptable	2-7-13
47	V-646	Acceptable	2-4-13	63	V-663	Acceptable	3-11-13	82B	V-682B	Acceptable	2-11-13
49	V-649	Acceptable	3-1-13	68	V-668	Acceptable	2-16-13	82C	V-682B	Acceptable	2-11-13
50	V-650	Acceptable	2-28-13	69	V-668	Acceptable	2-16-13	83B	V-683	Acceptable	2-15-13
51B	V-651B	Acceptable	2-25-13	70	V-670	Acceptable	2-9-13				
51C	V-651C	Acceptable	2-10-13	71	V-671	Acceptable	3-1-13				
51D	V-651D	Acceptable	2-7-13	52E	V-678	Acceptable	2-9-13				
52B	V-652B	Acceptable	2-21-13	52F	V-678	Acceptable	2-9-13				
52D	V-652D	Acceptable	2-6-13	78A	V-678	Acceptable	2-9-13				

SECTION H
PRESERVICE INSPECTION ITEMS
(Class 1, 2 & 3)

PG&E

DIABLO CANYON POWER PLANT – UNIT 2

SERVICE DATE: 03/13/86

THIRD INTERVAL, SECOND PERIOD, FIRST REFUELING OUTAGE REPORT
(2R17)

MAJOR ITEM: PSI

ASME SECTION XI SYSTEMS – CLASS 1, 2, & 3 PRESERVICE INSPECTION ITEMS

PAGE 1 of 2

CATEGORY	Name of Component	System	Exam Type	Work Order No.	Other Ident. Line No	Notes
Pressure Tests Following Repair/Replacements						
	FW-2-LCV-106	03	VT-2	60002220-0100	LINE-569-3"	Replaced Bonnet
	FW-2-LCV-107	03	VT-2	60002221-0100	LINE-570-3"	Replaced Bonnet
	MS-2-FCV-151	04	VT-2	60043253-0010	LINE-1040-2.5"	Replace Bonnet
	MS-2-FCV-151	04	VT-2	60043253-0080	LINE-1040-2.5"	Weld & Machine gasket seating face
	MS-2-FCV-157	04	VT-2	60051165-0010	LINE-1042-2.5"	Replace Bonnet
	MS-2-FCV-41	04	VT-2	60054811-0020	LINE-228-28"	Weld damaged threads and rethread
	MS-2-FCV-41	04	VT-2	60054811-0030	LINE-228-28"	Drill, Tap and install new Helicoil
	MS-2-RV-58	04	VT-2	64014898-0200	LINE-1066-6"	Replace RV & inlet bolting
	MS-2-RV-59	04	VT-2	64014899-0200	LINE-1066-6"	Replace RV, inlet bolting & spacer
	MS-2-RV-60	04	VT-2	64014900-0200	LINE-1066-6"	Replace RV, inlet bolting & spacer
	MS-2-RV-61	04	VT-2	64014901-0200	LINE-1066-6"	Replace RV, inlet bolting & spacer
	MS-2-RV-225	04	VT-2	64014902-0200	LINE-1066-6"	Replace RV, inlet bolting & spacer
	RCS-2-RV-8010A	07	VT-2	64051300-0200	LINE-729-6"	Replaced RV with tested spare
	RCS-2-RV-8010B	07	VT-2	64047440-0200	LINE-728-6"	Replaced RV with tested spare
	RCS-2-RV-8010C	07	VT-2	64047384-0200	LINE-727-6"	Replaced RV with tested spare
	CVCS-2-8487B	08	VT-2	60054100-0010	LINE-71-2"	Replace Valve
	CVCS-2-8463A	08	VT-2	60055132-0010	LINE-70-2"	Replace Bonnet
	CVCS-2-8402A	08	VT-2	68022222-0010	LINE-48-3"	Replace Valve
	CVCS-2-8402B	08	VT-2	68022224-0010	LINE-48-3"	Replace Valve

MAJOR ITEM: PSI

PAGE 2 of 2

35

SECTION I
REPAIRS AND REPLACEMENTS (NIS-2)
(Class 1, 2 & 3)

FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code Section XI

1. Owner Pacific Gas and Electric Company Date 5/20/2013
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 1

2. Plant Diablo Canyon Power Plant Unit 2
P.O. Box 56, Avila Beach, CA 93424

3. Work Performed by Owner Repair Org. P.O. No., Job No., etc.
See Above

4. Identification of System Feedwater System (03)

5. (a) Applicable Construction Code (See R/R Plans) Edition, 2001 Addenda, 02 / 03 Code Case, None
 (b) Applicable Edition of Section XI Utilized for Repair / Replacement Activity - 2001 Addenda, 02 / 03
 (c) Applicable Section XI Code Case(s), None

6. Identification of components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Corrected, Removed, or Installed	Pressure Test	ASME Code Stamped (Yes or No)
FW-2-LCV-106	Control Components Inc.	1242821	N/A	60002220-0100	Line-569-3"	1985	Installed, (1)	<input checked="" type="checkbox"/>	No
FW-2-LCV-107	Control Components Inc.	1242822	N/A	60002221-0100	Line-570-3"	1985	Installed, (1)	<input checked="" type="checkbox"/>	No
413-423R	PG&E	N/A	N/A	60055260-0010	Line-570-3"	1985	Installed, (2)	<input type="checkbox"/>	No
413-420R	PG&E	N/A	N/A	60055261-0010	Line-569-3"	1985	Installed, (2)	<input type="checkbox"/>	No

7. Description of Work (1) Replaced Bonnet, Bolting and Trim Set, (2) Replaced support bolting,

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
 Other ☐ Pressure see rmks PSIG Test Temp. amb °F

9. Remarks AFW pump 2-1 disch PI-426 = 1480 psig.

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI

Type Code Symbol Stamp N/A Certificate of Authorization No. N/A Expiration Date N/A

Signed Patrick Nugent Engineering Manager 6/3/13
 (Owner or Owner's Designee) (Title) (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, And employed by HSB-CT of Hartford, CT

have inspected the components described in this Owner's Report during the period 7/05, 2011 to 4/22, 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in the Owner's Report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Kenny D. Kim Inspector 6-3-2013 Commissions CA 1828 - NB 9990 A.N.I.C
 (Title) (Date) (State or Province, National Board)

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code Section XI

1. Owner Pacific Gas and Electric Company Date 5/20/2013
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 2

2. Plant Diablo Canyon Power Plant Unit 2
P.O. Box 56, Avila Beach, CA 93424

3. Work Performed by Owner
See Above Repair Org. P.O. No., Job No., etc.

4. Identification of System Turbine Steam Supply System (04)

5. (a) Applicable Construction Code (See R/R Plans) Edition, Addenda, Code Case,
(b) Applicable Edition of Section XI Utilized for Repair / Replacement Activity - 2001 Addenda, 02 / 03
(c) Applicable Section XI Code Case(s), None

6. Identification of components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Corrected, Removed, or Installed	Pressure Test	ASME Code Stamped (Yes or No)
MS-2-PCV-22	Copes - Vulcan Inc.	6910.95009	N/A	60036899-0100	Line-225-8"	1985	Installed, (1)	<input type="checkbox"/>	No
MS-2-RV-3	Dresser Ind. Vlv Div	BN1739	N/A	60037146-0010	S/C D957853	1985	Installed, (2)	<input type="checkbox"/>	No
MS-2-RV-4	Dresser Ind. Vlv Div	BN01744	N/A	60037147-0010	S/C D957854	1985	Installed, (2)	<input type="checkbox"/>	No
MS-2-RV-5	Dresser Ind. Vlv Div	BM7850	N/A	60037148-0010	S/C D967001	1985	Installed, (2)	<input type="checkbox"/>	No

7. Description of Work (1) Replaced one Bonnet Bolt and Trim Set, (2) Replaced disc assembly,

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
Other ☐ Pressure see rmks PSIG Test Temp. see rmks °F

9. Remarks U-2 in Mode-3 with Main Steam at about 1000 psig. and about 549 deg F.

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI

Type Code Symbol Stamp N/A Certificate of Authorization No. N/A Expiration Date N/A
Signed Patrick Ngent Engineering Manager 6/3/13
(Owner or Owner's Designee) (Title) (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, And employed by HSB-CT of Hartford, CT
have inspected the components described in this Owner's Report during the period 7/05, 2011 to 4/22, 2013,
and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in the Owner's Report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Kenny B. Kim Inspector 6-3-2013 Commissions CA 1828 - NB 9990 A.N.I.C
(Title) (Date) (State or Province, National Board)

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code Section XI

1. Owner	<u>Pacific Gas and Electric Company</u> <u>77 Beale Street, San Francisco, CA 94106</u>	Date	<u>5/20/2013</u>
		Sheet	<u>2</u> of <u>2</u>
2. Plant	<u>Diablo Canyon Power Plant</u> <u>P.O. Box 56, Avila Beach, CA 93424</u>	Unit	<u>2</u>
3. Work Performed by	<u>Owner</u> <u>See Above</u>	Repair Org. P.O. No., Job No., etc.	
4. Identification of System	<u>Turbine Steam Supply System (04)</u>		
5. (a) Applicable Construction Code	<u>See R/R Plan</u>	Edition,	<u> </u>
(b) Applicable Edition of Section XI Utilized for Repair / Replacement Activity -	<u>2001</u>	Addenda,	<u>02 / 03</u>
(c) Applicable Section XI Code Case(s),	<u>None</u>		

6. Identification of components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Corrected, Removed, or Installed	Pressure Test	ASME Code Stamped (Yes or No)
MS-2-RV-6	Dresser Ind. Vlv Div	BN1452	N/A	60037149-0010	S/C D957856	1985	Installed, (2)	<input type="checkbox"/>	No
MS-2-RV-222	Dresser Ind. Vlv Div	BN1456	N/A	60037150-0010	S/C D957857	1985	Installed, (2)	<input type="checkbox"/>	No
MS-2-FCV-151	Fisher Controls Co Inc.	4933090	N/A	60043253-0010	Line-1040-2.5"	1985	Installed, (3)	<input checked="" type="checkbox"/>	No
MS-2-FCV-151	Fisher Controls Co Inc.	4933090	N/A	60043253-0080	Line-1040-2.5"	1985	Corrected, (4)	<input checked="" type="checkbox"/>	No
MS-2-FCV-157	Fisher Controls Co Inc.	4933092	N/A	60051165-0010	Line-1042-2.5"	1985	Installed, (3)	<input checked="" type="checkbox"/>	No
413-464SL	Pacific Scientific Co	684	N/A	60054445-0300	Line-3916-3"	1985	Installed, (5)	<input type="checkbox"/>	Yes
MS-2-FCV-41	Schutte and Koerting Co	N/F	N/A	60054811-0010	Line-228-28"	1985	Installed, (6)	<input type="checkbox"/>	No
MS-2-FCV-41	Schutte and Koerting Co	N/F	N/A	60054811-0020	Line-228-28"	1985	Corrected, (7)	<input checked="" type="checkbox"/>	No
MS-2-FCV-41	Schutte and Koerting Co	N/F	N/A	60054811-0030	Line-228-28"	1985	Installed, (8)	<input checked="" type="checkbox"/>	No
MS-2-5167	Anchor-Darling	EA998-3-1	N/A	60055244-0010	Line-594-4"	1990	Installed, (9)	<input type="checkbox"/>	Yes
MS-2-FCV-15	Byron Jackson /Dresser-Rand	T36566	N/A	60055308-0010	Terry Turbine steam lead	1985	Installed, (9)	<input type="checkbox"/>	No
MS-2-FCV-15	Byron Jackson /Dresser-Rand	Spare Bonnet	N/A	60055478-0010	S/C D934604	1985	Corrected, (10)	<input type="checkbox"/>	No
MS-2-RV-58	Dresser Ind. Vlv Div	BM07851	N/A	64014898-0200	Line-1066-6"	1984	Installed, (11)	<input checked="" type="checkbox"/>	No
MS-2-RV-59	Dresser Ind. Vlv Div	BN1747	N/A	64014899-0200	Line-1066-6"	1984	Installed, (12)	<input checked="" type="checkbox"/>	No
MS-2-RV-60	Dresser Ind. Vlv Div	BM07861	N/A	64014900-0200	Line-1066-6"	2006	Installed, (12)	<input checked="" type="checkbox"/>	No
MS-2-RV-61	Dresser Ind. Vlv Div	BM7865	N/A	64014901-0200	Line-1066-6"	1984	Installed, (12)	<input checked="" type="checkbox"/>	No
MS-2-RV-225	Dresser Ind. Vlv Div	BN1743	N/A	64014902-0200	Line-1066-6"	1985	Installed, (12)	<input checked="" type="checkbox"/>	No

7. Remarks

(2) Replaced disc assembly, (3) Replaced Bonnet bolting, Bonnet and Internals,

(4) Repair body, gasket seating surface by weld build-up and machining, (5) Replaced Snubber,

(6) Replaced Bolting / HELI-COIL repair, (7) Weld build-up thread holes and re-thread, (8) Drill, tap and install new HELI-COIL,

(9) Replace internals, (10) Drill and tap holes in spare bonnet, (11) Replaced RV and inlet bolting,

(12) Replaced RV, inlet bolting and inlet flange spacer,

FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code Section XI

1. Owner Pacific Gas and Electric Company Date 5/20/2013
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 2

2. Plant Diablo Canyon Power Plant Unit 2
P.O. Box 56, Avila Beach, CA 93424

3. Work Performed by Owner
See Above Repair Org. P.O. No., Job No., etc.

4. Identification of System Reactor Coolant System (07)

5. (a) Applicable Construction Code (See R/R Plans) Edition, Addenda, Code Case,
(b) Applicable Edition of Section XI Utilized for Repair / Replacement Activity - 2001 Addenda, 02 / 03
(c) Applicable Section XI Code Case(s), None

6. Identification of components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Corrected, Removed, or Installed	Pressure Test	ASME Code Stamped (Yes or No)
RCS-2-8051	Dragon Valve	TA3407 *	N/A	60009355-0010	Line-1170-.75"	1988	Installed, (1)	<input type="checkbox"/>	No
SG 02-02SL SE	Paul Munroe	1691	N/A	60014658-0100	SG2-2 SE snubber	1984	Installed, (2)	<input type="checkbox"/>	No
RPV Head Vent Spool	AREVA & Target Rock	SOV-1 (s/n 7 & 8)	N/A	60037293-0010	RCS-2-8078A&B 1"	2011	Installed, (3)	<input type="checkbox"/>	Yes
RPV Head Vent Spool	AREVA & Target Rock	SOV-6 (s/n 9 & 12)	N/A	60037293-0020	RCS-2-8078C&D 1"	2011	Installed, (3)	<input type="checkbox"/>	Yes

7. Description of Work (1) Replace valve and assoc piping by welding, (2) Replaced snubber sample valve, valve adapter & tubing,
(3) Replaced RPV Head Vent spool piece,

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐
Other ☐ Pressure PSIG Test Temp. °F

9. Remarks * = Manufacturer's Code Data Report attached.

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI

Type Code Symbol Stamp N/A Certificate of Authorization No. N/A Expiration Date N/A
Signed Patrick Nugent Engineering Manager 6/3/13
(Owner or Owner's Designee) (Title) (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, And employed by HSB-CT of Hartford, CT
have inspected the components described in this Owner's Report during the period 7/05, 2011 to 4/22, 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in the Owner's Report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Kenny D. Kim Inspector 6-3-2013 Commissions CA 1828 - NB 9990 A.N.I.C
(Title) (Date) (State or Province, National Board)

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

1. Owner	<u>Pacific Gas and Electric Company</u> <u>77 Beale Street, San Francisco, CA 94106</u>	Date <u>5/20/2013</u> Sheet <u>2</u> of <u>2</u>
2. Plant	<u>Diablo Canyon Power Plant</u> <u>P.O. Box 56, Avila Beach, CA 93424</u>	Unit <u>2</u>
3. Work Performed by	<u>Owner</u> <u>See Above</u>	<u>Repair Org. P.O. No., Job No., etc.</u>
4. Identification of System	<u>Reactor Coolant System (07)</u>	
5. (a) Applicable Construction Code	<u>See R/R Plan</u> Edition, <u> </u>	Addenda, <u> </u> Code Case, <u> </u>
(b) Applicable Edition of Section XI Utilized for Repair / Replacement Activity -	<u>2001</u>	Addenda, <u>02 / 03</u>
(c) Applicable Section XI Code Case(s),	<u>None</u>	
6. Identification of components.		

[illegible]

7. Remarks	(4) Install ID tags by welding, (5) Replace Pilot/Main discs, (6) Replace bonnet, (7) Replaced A/D snubber with an ANVIL snubber, (8) Replaced missing bonnet nut, ** ANVIL Certificate of Compliance attached
------------	--

As Required by the Provisions of the ASME Code, Section III, Div. 1

(a) Model No., (b) N Certificate Holder's (c) Canadian

5.	Packless Valve, Globe	(4 Pcs.)
	[Brief description of service for which equipment was designed]	

7. Cold Working Pressure 4100 psi at 100°F.

8. Pressure Retaining Pieces

[illegible]

(1) For manually operated valves only.

* Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8-1/2" x 11", (2) information in items 1, 2 and 5 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded at top of this form.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump, or valve, conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components. Section III, Div. I, Edition 1986.
Addenda N/A, Code Case No. N/A, Date June 20, 1994
(Date)
Signed DRAGON VALVES, INC. by R. C. Snyder
(N Certificate Holder)
Cur ASME Certificate of Authorization No. N-1033 to use the N symbol expires 5/6/96
(N) (Date)

CERTIFICATION OF DESIGN

Design information on file at Pacific Gas & Electric Co.
Stress analysis report (Class 1 only) on file at Pacific Gas & Electric Co.

Design specifications certified by (1) Clyde H. Nichols
PE State CA Reg. No. M17259
Stress analysis certified by (1) Harold M. Braund
PE State CA Reg. No. M20589

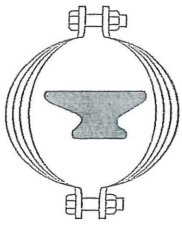
(1) Signature not required. List name only.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of CALIFORNIA and employed by H.S.B. INSP. & INSP. CO. of HARTFORD, CT. have inspected the pump, or valve, described in this Data Report on 6-20 19 94, and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 6-20 19 94
W. F. Reynolds Commissions CA-1526
(Inspector) (Nat'l Bd. State, Prov. and No.)



ANVIL EPS

ENGINEERED PIPE SUPPORTS

160 Frenchtown Rd.
Precision Park
North Kingstown, RI 02852

QA (401) 886-3030
QA (401) 886-3105
Fax (401) 886-3024

CERTIFICATE OF COMPLIANCE

January 30, 2012

Page 1 of 2

Pacific Gas & Electric
Diablo Canyon Power Plant
Avila Beach, CA 93424

Reference: P.O.# 3500932065 Rev.0
Anvil S.O.#41-105400

Item Nos.:

See attached

We Anvil International, LP dba Anvil EPS certify that the material supplied on the referenced order complies with the applicable requirements of ASME Section III, Subsection NF Class 1, 2001 Edition, 2003 Addenda, ASME Section II, DRS 3306 Rev.2, PE-188-5 Rev.0 and the referenced purchase order. We further certify that seal material is of approved Ethylene-Propylene compounds and have been fully qualified for nuclear service in hydraulic snubbers.

Seals have a 5 year shelf life at 90 Degrees F starting at there 7/26/12 assembly date . In service seals Have a service life of twenty five (25) years at 157 Degrees F starting at their installation date.

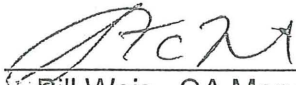
We also certify to the best of our knowledge and belief that the contents of the report are correct and accurate and that all test results and operations performed by Anvil or our approved suppliers are in compliance with the applicable material specifications.

A marking code may be utilized to identify material specification, grade, class and heat treated condition. See reverse side for material identification codes.

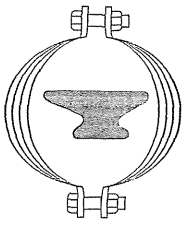
No weld repair has been performed by Anvil or Anvil's suppliers.

All materials were manufactured and/or supplied in accordance with the referenced purchase order, the ASME approved Anvil EPS Quality Assurance Program/Manual, Second Issue Rev.4 dated 10/17/11, and the Anvil ASME NS Certificate of Accreditation Number N-3054 which expires 9/29/13.

Attachments: Functional Test Reports Serial# 38794 Thru 38802



Bill Weis, QA Manager
S.C. Miller, QC Group Leader
COC36



ANVIL EPS

ENGINEERED PIPE SUPPORTS

160 Frenchtown Rd.
Precision Park
North Kingstown, RI 02852

QA (401) 886-3030
QA (401) 886-3105
Fax (401) 886-3024

CERTIFICATE OF COMPLIANCE

January 30, 2012


Page 2 of 2

Pacific Gas & Electric
Diablo Canyon Power Plant
Avila Beach, CA 93424

Reference: P.O.# 3500932065 Rev.0
Anvil S.O.#41-105400

Item Nos :

- 1, FIG3307N 1/2k x 4" W = 6 5/16", CPS = 2 11/16", DESC# D964216 ✓
- 2, FIG3307N 1k x 4" W = 8 3/8", CPS = 3 5/16", DESC# D964217 ✓
- 3, FIG3307N 1/4k x 4" W = 45 5/16", CPS = 3 3/16", DESC# D964218 ✓
- 4, FIG3307N 1/4k x 4" W = 35 1/16", CPS = 2 9/16", DESC# D964219 ✓
- 5, FIG3307N 1/4k x 4" W = 27 13/16", CPS = 2 11/16", DESC# D964220 ✓ (38796)
- 6, FIG3307N 1/2k x 4" W = 22 1/8", CPS = 2 3/16", DESC# D964221 ✓
- 7, FIG3307N 1k x 4" W = 32 3/4", CPS = 2 1/16", DESC# D964222 ✓
- 8, FIG3307N 1/4k x 4" W = 10 3/8", CPS = 2 11/16", DESC# D964223 ✓
- 9, FIG3307N 1/4k x 4" W = 29 3/16", CPS = 2 9/16", DESC# D964224 ✓



Bill Weis, QA Manager
S.C. Miller, QC Group Leader
COC36

FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code Section XI

1. Owner Pacific Gas and Electric Company Date 5/20/2013
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 1

2. Plant Diablo Canyon Power Plant Unit 2
P.O. Box 56, Avila Beach, CA 93424

3. Work Performed by Owner
See Above Repair Org. P.O. No., Job No., etc.

4. Identification of System Chemical and Volume Control System (08)

5. (a) Applicable Construction Code (See R/R Plans) Edition, Addenda, Code Case,
 (b) Applicable Edition of Section XI Utilized for Repair / Replacement Activity - 2001 Addenda, 02 / 03
 (c) Applicable Section XI Code Case(s), None

6. Identification of components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Corrected, Removed, or Installed	Pressure Test	ASME Code Stamped (Yes or No)
78-419SL	ANVIL	38797 **	N/A	60049448-0200	Line-57-1.5"	2009	Installed (1)	<input type="checkbox"/>	Yes
78-278SL	ANVIL	38795 **	N/A	60049528-0200	Line-61-2"	1987	Installed (1)	<input type="checkbox"/>	Yes
78-336SL	ANVIL	38802 **	N/A	60049530-0200	Line-403-2"	1985	Installed (1)	<input type="checkbox"/>	Yes
CVCS-2-8487B	Velan Valve	061026-4 *	N/A	60054100-0010	Line-71-2"	2008	Installed (2)a	<input checked="" type="checkbox"/>	Yes
CVCS-2-8463A	ITT Grinnell	N/F	N/A	60055132-0030	Line-70-2"	1985	Installed (3)b	<input checked="" type="checkbox"/>	No
CVCS-2-8402A	Velan Valve	74BQP *	N/A	68022222-0010	Line-48-3"	1985	Installed (4)c	<input checked="" type="checkbox"/>	No
CVCS-2-8402B	Velan Valve	75BQP *	N/A	68022224-0010	Line-48-3"	1985	Installed (4)c	<input checked="" type="checkbox"/>	No

7. Description of Work (1) Replaced A/D snubber with an ANVIL snubber, (2) Replaced valve, (3) Replaced Bonnet, (4) Replaced valve by welding.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
 Other ☐ Pressure see rmks PSIG Test Temp. see rmks °F

9. Remarks (a) BA transfer pump 2-2 discharge pressure. (b) Boric Acid Storage tank head pressure.

(c) Charging discharge header pressure was 2430 psig and temperature was ambient.

* = Manufacturer's Code Data Report attached. ** ANVIL Certificate of Compliance attached.

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI

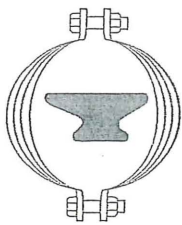
Type Code Symbol Stamp N/A Certificate of Authorization No. N/A Expiration Date N/A
 Signed [Signature] Engineering Manager 6/3/13
 (Owner or Owner's Designee) Patrick Nugent (Title) (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, And employed by HSB-CT of Hartford, CT
 have inspected the components described in this Owner's Report during the period 7/05, 2011 to 4/22, 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in the Owner's Report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

[Signature] Inspector 6-3-2013 Commissions CA 1828 - NB 9990 A.N.I.C
Kenny D. Kim (Title) (Date) (State or Province, National Board)

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.



ANVIL EPS

ENGINEERED PIPE SUPPORTS

160 Frenchtown Rd.
Precision Park
North Kingstown, RI 02852

QA (401) 886-3030
QA (401) 886-3105
Fax (401) 886-3024

CERTIFICATE OF COMPLIANCE

January 30, 2012

Page 1 of 2

Pacific Gas & Electric
Diablo Canyon Power Plant
Avila Beach, CA 93424

Reference: P.O.# 3500932065 Rev.0
Anvil S.O.#41-105400

Item Nos.:

See attached

We Anvil International, LP dba Anvil EPS certify that the material supplied on the referenced order complies with the applicable requirements of ASME Section III, Subsection NF Class 1, 2001 Edition, 2003 Addenda, ASME Section II, DRS 3306 Rev.2, PE-188-5 Rev.0 and the referenced purchase order. We further certify that seal material is of approved Ethylene-Propylene compounds and have been fully qualified for nuclear service in hydraulic snubbers.

Seals have a 5 year shelf life at 90 Degrees F starting at there 7/26/12 assembly date . In service seals Have a service life of twenty five (25) years at 157 Degrees F starting at their installation date.

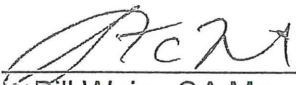
We also certify to the best of our knowledge and belief that the contents of the report are correct and accurate and that all test results and operations performed by Anvil or our approved suppliers are in compliance with the applicable material specifications.

A marking code may be utilized to identify material specification, grade, class and heat treated condition. See reverse side for material identification codes.

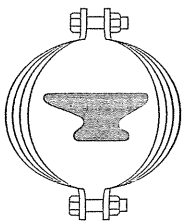
No weld repair has been performed by Anvil or Anvil's suppliers.

All materials were manufactured and/or supplied in accordance with the referenced purchase order, the ASME approved Anvil EPS Quality Assurance Program/Manual, Second Issue Rev.4 dated 10/17/11, and the Anvil ASME NS Certificate of Accreditation Number N-3054 which expires 9/29/13.

Attachments: Functional Test Reports Serial# 38794 Thru 38802



Bill Weis, QA Manager
S.C. Miller, QC Group Leader
COC36



ANVIL EPS

ENGINEERED PIPE SUPPORTS

160 Frenchtown Rd.
Precision Park
North Kingstown, RI 02852

QA (401) 886-3030
QA (401) 886-3105
Fax (401) 886-3024

CERTIFICATE OF COMPLIANCE

January 30, 2012


Page 2 of 2

Pacific Gas & Electric
Diablo Canyon Power Plant
Avila Beach, CA 93424

Reference: P.O.# 3500932065 Rev.0
Anvil S.O.#41-105400

Item Nos.:

- 1, FIG3307N 1/2k x 4" W = 6 5/16", CPS = 2 11/16", DESC# D964216 ✓
- 2, FIG3307N 1k x 4" W = 8 3/8", CPS = 3 5/16", DESC# D964217 ✓
- 3, FIG3307N 1/4k x 4" W = 45 5/16", CPS = 3 3/16", DESC# D964218 ✓
- 4, FIG3307N 1/4k x 4" W = 35 1/16", CPS = 2 9/16", DESC# D964219 ✓ (38795)
- 5, FIG3307N 1/4k x 4" W = 27 13/16", CPS = 2 11/16", DESC# D964220 ✓
- 6, FIG3307N 1/2k x 4" W = 22 1/8", CPS = 2 3/16", DESC# D964221 ✓ (38802)
- 7, FIG3307N 1k x 4" W = 32 3/4", CPS = 2 1/16", DESC# D964222 ✓
- 8, FIG3307N 1/4k x 4" W = 10 3/8", CPS = 2 11/16", DESC# D964223 ✓ (38797)
- 9, FIG3307N 1/4k x 4" W = 29 3/16", CPS = 2 9/16", DESC# D964224 ✓



Bill Weis, QA Manager
S.C. Miller, QC Group Leader
COC36

FORM NPV-1 CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PUMPS OR VALVES *
As Required by the Provisions of the ASME Code, Section III, Division 1

Pg. 1 of 2

1. Manufactured and certified by VELAN INC. 2125 WARD AVE, MONTREAL, QUEBEC CANADA H4M1T6
 (name and address of N Certificate Holder)
2. Manufactured for Pacific Gas & Electric Co. Diablo Canyon Power Plant, P.O. box 56 Avila Beach, CA
 (name and address of purchaser)
3. Location of installation Diablo Canyon Power Plant 9 miles N.W of Avila Beach CA 93424 USA
 (name and address)
4. Model No., Series No., or Type: PISTON Drawing P1-76800-N34 Rev A CRN N/A
5. ASME Code, Section III, Division 1: 1989 NONE 1 N/A
 (edition) (addenda date) (class) (Code Case no.)
6. Pump or valve VALVE Nominal inlet size 2 Outlet size 2
 (in.) (in.)
7. Material: Body SA-182, F316 Bonnet SA-182, F316 Disk UNS-N99644 Bolting N/A

(a)
 Cert.
 Holder's
 Serial No.

(b)
 Nat'l
 Board
 No.

(c)
 Body
 Serial
 No.

(d)
 Bonnet
 Serial
 No.

(e)
 Disk
 Serial
 No.

061026-1

N/A

H/C: MMRMU1

H/C: 1DOA

H/C: 2CDV

061026-2

N/A

H/C: MMRMU1

H/C: 1DOA

H/C: 2CDV

061026-3

N/A

H/C: MMRMU1

H/C: 1DOA

H/C: 2CDV

061026-4

N/A

H/C: MMRMU1

H/C: 1DOA

H/C: 2CDV

061026-5

N/A

H/C: MMRMU1

H/C: 1DOA

H/C: 2CDV

061026-6

N/A

H/C: MMRMU1

H/C: 1DOA

H/C: 2CDV

061026-7

N/A

H/C: MMRMU1

H/C: 1DOA

H/C: 2CDV

Supplemental information in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 1 through 4 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

(12/88) This form (E00037) may be obtained from the Order Dept., ASME, 22 LAW DRIVE, Box 2300, Fairfield, NJ 07007-2300.

Certificate Holder's Serial No. 061026

8. Design conditions 6430 psi 100 °F or valve pressure class 2680 (1)
(pressure) (temperature)
9. Cold working pressure 6430 psi at 100°F
10. Hydrostatic test 9650 psi. Disk differential test pressure 7075 psi
11. Remarks: MATERIALS MEET ASME SECTION II EDITION: 1989 ADDENDA: NONE

CERTIFICATE OF DESIGN

Design Specification certified by M. LAVIGNE P.E. State QUE Reg. no. 40052
Design report certified by S. ISBITSKY P.E. State QUE Reg. no. 22115

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump or valve conforms to the rules for construction of the ASME Code, Section III, Division 1.

N Certificate of Authorization No. N-2797-1 Expires APR 20, 2007

Date NOV 29 2006 Name VELAN INC. Signed [Signature]
(N Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of QUEBEC and employed by REGIE DU BATIMENT of QUEBEC have inspected the pump, or valve, described in this Data Report on November 30, 2006, and state that to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III, Division 1.

By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the component described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date Nov. 30/2006 signed [Signature] Commissions QUEBEC J.P.FACHINETTI QC# 13813
(Authorized Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and

(1) For manually operated valves only.

Pg. 1 of 2

[illegible]

2

FORM NPV-1 (Back — Pg. 2 of ²)

Certificate Holder's Serial No. 72BQP-76BQP

8. Design conditions 2735 (pressure) psi 597 (temperature) °F or valve pressure class 1816
9. Cold working pressure 4358 psi at 100°F
10. Hydrostatic test 6550 psi. Disk differential test pressure 4794 psi
11. Remarks: S.O. 57878
GASKET RETAINER - MAT'L: SA564-630-1100, HEAT: BHS, S/N: 1 THRU 5

CERTIFICATION OF DESIGN

Design Specification certified by K. J. Dalal P.E. State CA Reg. no. M-16690
 Design Report certified by N/A P.E. State N/A Reg. no. N/A

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump or valve conforms to the rules for construction of the ASME Code, Section III, Division 1.

N Certificate of Authorization No. N-1562 Expires 11-26-12

Date 8/6/10 Name Flowserve Corporation Signed [Signature]
 (N Certificate Holder) (authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of NC and employed by HSB CT.

8/6/10 of Hartford, CT have inspected the pump, or valve, described in this Data Report on 8/6/10, and state that to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III, Division 1.

By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the component described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 8/6/10 Signed [Signature] Commissions NC1549
 (Authorized Nuclear Inspector) (Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code Section XI

1. Owner Pacific Gas and Electric Company Date 5/20/2013
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 1

2. Plant Diablo Canyon Power Plant Unit 2
P.O. Box 56, Avila Beach, CA 93424

3. Work Performed by Owner
See Above Repair Org. P.O. No., Job No., etc.

4. Identification of System Safety Injection System (09)

5. (a) Applicable Construction Code (See R/R Plans) Edition, Addenda, Code Case,
(b) Applicable Edition of Section XI Utilized for Repair / Replacement Activity - 2001 Addenda, 02 / 03
(c) Applicable Section XI Code Case(s), None

6. Identification of components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Corrected, Removed, or Installed	Pressure Test	ASME Code Stamped (Yes or No)
72-83SL	Pacific Scientific	13632	N/A	60048296-0300	Line-237-6"	1985	Installed, (1)	<input type="checkbox"/>	Yes
SI PP 2-2	Pacific Pumps	JN51890-01	N/A	60055912-0010	SIP2	1996	Installed, (2)	<input type="checkbox"/>	No
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	

7. Description of Work (1) Replaced Snubber, (2) Replaced Seal cover bolting.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐
Other ☐ Pressure see rmks PSIG Test Temp. see rmks °F

9. Remarks

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI

Type Code Symbol Stamp N/A Certificate of Authorization No. N/A Expiration Date N/A

Signed Patrick Nugent Engineering Manager 6/3/13
(Owner or Owner's Designee) (Title) (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, And employed by HSB-CT of Hartford, CT
have inspected the components described in this Owner's Report during the period 7/05, 2011 to 4/22, 2013,
and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in the Owner's Report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Kenny D. Kim Inspector 6-3-2013 Commissions CA 1828 - NB 9990 A.N.I.C
(Title) (Date) (State or Province, National Board)

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code Section XI

1. Owner Pacific Gas and Electric Company Date 5/20/2013
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 1

2. Plant Diablo Canyon Power Plant Unit 2
P.O. Box 56, Avila Beach, CA 93424

3. Work Performed by Owner
See Above Repair Org. P.O. No., Job No., etc.

4. Identification of System Residual Heat Removal System (10)

5. (a) Applicable Construction Code (See R/R Plans) Edition, Addenda, Code Case,
(b) Applicable Edition of Section XI Utilized for Repair / Replacement Activity - 2001 Addenda, 02 / 03
(c) Applicable Section XI Code Case(s), None

6. Identification of components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Corrected, Removed, or Installed	Pressure Test	ASME Code Stamped (Yes or No)
RHR-2-8728B	Crane Co.	N/F	N/A	60027069-0010	Line-113-8"	1988	Installed, (1)	<input type="checkbox"/>	No
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	

7. Description of Work (1) Replace Bonnet Bolting,

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐
Other ☐ Pressure see rmps PSIG Test Temp. see rmps °F

9. Remarks

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI

Type Code Symbol Stamp N/A Certificate of Authorization No. N/A Expiration Date N/A

Signed Patrick Nugent Engineering Manager 6/3/13
(Owner or Owner's Designee) (Title) (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, And employed by HSB-CT of Hartford, CT
have inspected the components described in this Owner's Report during the period 7/05, 2011 to 4/22, 2013,
and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in the Owner's Report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Kenny D. Kim Inspector 6-3-2013 Commissions CA 1828 - NB 9990 A.N.I.C
(Title) (Date) (State or Province, National Board)

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code Section XI

1. Owner Pacific Gas and Electric Company Date 5/20/2013
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 1

2. Plant Diablo Canyon Power Plant Unit 2
P.O. Box 56, Avila Beach, CA 93424

3. Work Performed by Owner Repair Org. P.O. No., Job No., etc.
See Above

4. Identification of System Containment Spray System (12)

5. (a) Applicable Construction Code (See R/R Plans) Edition, Addenda, Code Case,
(b) Applicable Edition of Section XI Utilized for Repair / Replacement Activity - 2001 Addenda, 02 / 03
(c) Applicable Section XI Code Case(s), None

6. Identification of components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Corrected, Removed, or Installed	Pressure Test	ASME Code Stamped (Yes or No)
CS-2-9006B	Aloyco Div / Walworth Co	70-A63-516	N/A	60035907-0030	Line-326-8"	1985	Installed, (1)	<input type="checkbox"/>	No
414-60	PG&E	N/A	N/A	68021795-0030	Line-270-10"	1985	Installed, (2)	<input type="checkbox"/>	No
414-65	PG&E	N/A	N/A	68021796-0030	Line-271-10"	1985	Installed, (2)	<input type="checkbox"/>	No
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	

7. Description of Work (1) Replaced body/bonnet bolting, (2) Modified support,

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐
Other ☐ Pressure see rmks PSIG Test Temp. see rmks °F

9. Remarks

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI

Type Code Symbol Stamp N/A Certificate of Authorization No. N/A Expiration Date N/A

Signed Patrick Ngent Engineering Manager 6/3/12
(Owner or Owner's Designee) (Title) (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, And employed by HSB-CT of Hartford, CT
have inspected the components described in this Owner's Report during the period 7/05, 2011 to 4/22, 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in the Owner's Report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Kenny D. Kim Inspector 6-3-2013 Commissions CA 1828 - NB 9990 A.N.I.C
(Title) (Date) (State or Province, National Board)

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code Section XI

1. Owner Pacific Gas and Electric Company Date 5/20/2013
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 1

2. Plant Diablo Canyon Power Plant Unit 2
P.O. Box 56, Avila Beach, CA 93424

3. Work Performed by Owner
See Above Repair Org. P.O. No., Job No., etc.

4. Identification of System Spent Fuel Pool Cooling (13)

5. (a) Applicable Construction Code (See R/R Plans) Edition, Addenda, Code Case,
(b) Applicable Edition of Section XI Utilized for Repair / Replacement Activity - 2001 Addenda, 02 / 03
(c) Applicable Section XI Code Case(s), None

6. Identification of components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Corrected, Removed, or Installed	Pressure Test	ASME Code Stamped (Yes or No)
SFS-2-8756	Crane Valve Services	N/F	N/A	60050641-0010	Line-154-10"	1986	Installed, (1)	<input type="checkbox"/>	No
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	

7. Description of Work (1) Replace Body/Bonnet Bolting with 630 mat'l,

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐
Other ☐ Pressure PSIG Test Temp. °F

9. Remarks

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI

Type Code Symbol Stamp N/A Certificate of Authorization No. N/A Expiration Date N/A

Signed Patrick Ngent Engineering Manager 6/3/17
(Owner or Owner's Designee) (Title) (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, And employed by HSB-CT of Hartford, CT
have inspected the components described in this Owner's Report during the period 7/05, 2011 to 4/22, 2013,
and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in the Owner's Report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Kenny D. Kim Inspector 6-3-2013 Commissions CA 1828 - NB 9990 A.N.I.C
(Title) (Date) (State or Province, National Board)

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code Section XI

1. Owner Pacific Gas and Electric Company Date 5/20/2013
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 2

2. Plant Diablo Canyon Power Plant Unit 2
P.O. Box 56, Avila Beach, CA 93424

3. Work Performed by Owner
See Above Repair Org. P.O. No., Job No., etc.

4. Identification of System Component Cooling Water (14)

5. (a) Applicable Construction Code (See R/R Plans) Edition, Addenda, Code Case,
(b) Applicable Edition of Section XI Utilized for Repair / Replacement Activity - 2001 Addenda, 02 / 03
(c) Applicable Section XI Code Case(s), None

6. Identification of components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Corrected, Removed, or Installed	Pressure Test	ASME Code Stamped (Yes or No)
CCW Pump 2-3	Bingham Int'l	290296	N/A	60029035-0011	CCWP3	1985	Installed, (1)	<input checked="" type="checkbox"/>	No
CCW Pump 2-3	Bingham Int'l	290296	N/A	60029035-0031	CCWP3	1985	Installed, (2)	<input checked="" type="checkbox"/>	No
CCW Pump 2-1	Bingham Int'l	290294	N/A	60033750-0030	CCWP1	1985	Installed, (2)	<input checked="" type="checkbox"/>	No
CCW Pump 2-1	Bingham Int'l	290294	N/A	60033750-0040	CCWP1	1985	Installed, (1)	<input checked="" type="checkbox"/>	No
72-57SL	ANVIL	38799	N/A	60047901-0200	Line-2342-3"	2009	Installed, (3)	<input type="checkbox"/>	Yes

7. Description of Work (1) Replaced outboard mech seal assy, (2) Replaced inboard mech seal assy,
(3) Replaced A/D snubber with an ANVIL snubber,

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
Other ☐ Pressure see rmks PSIG Test Temp. see rmks °F

9. Remarks CCW Pumps in service during VT-2 examination.

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI

Type Code Symbol Stamp N/A Certificate of Authorization No. N/A Expiration Date N/A

Signed Patrick Nugent Engineering Manager 6/3/13
(Owner or Owner's Designee) (Title) (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, And employed by HSB-CT of Hartford, CT
have inspected the components described in this Owner's Report during the period 7/05, 2011 to 4/22, 2013,
and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in the Owner's Report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Kenny D. Kim Inspector 6-3-2013 Commissions CA 1828 - NB 9990 A.N.I.C
(Title) (Date) (State or Province, National Board)

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code Section XI

1. Owner	Pacific Gas and Electric Company	Date	5/20/2013
	77 Beale Street, San Francisco, CA 94106	Sheet	2 of 2

2. Plant	Diablo Canyon Power Plant	Unit	2
	P.O. Box 56, Avila Beach, CA 93424		

3. Work Performed by	Owner	
	See Above	Repair Org. P.O. No., Job No., etc.

4. Identification of System Component Cooling Water (14)

5. (a) Applicable Construction Code See R/R Plan Edition, Addenda, Code Case,
 (b) Applicable Edition of Section XI Utilized for Repair / Replacement Activity - 2001 Addenda, 02 / 03
 (c) Applicable Section XI Code Case(s), None

6. Identification of components.

[illegible]

7. Remarks	(3) Replaced A/D snubber with an ANVIL snubber, (4) Replaced snubber, (5) Replaced PSA snubber with an ANVIL snubber,
------------	--

FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code Section XI

1. Owner Pacific Gas and Electric Company Date 5/20/2013
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 1

2. Plant Diablo Canyon Power Plant Unit 2
P.O. Box 56, Avila Beach, CA 93424

3. Work Performed by Owner
See Above Repair Org. P.O. No., Job No., etc.

4. Identification of System Makeup Water (16)

5. (a) Applicable Construction Code (See R/R Plans) Edition, Addenda, Code Case,
 (b) Applicable Edition of Section XI Utilized for Repair / Replacement Activity - 2001 Addenda, 02 / 03
 (c) Applicable Section XI Code Case(s), None

6. Identification of components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Corrected, Removed, or Installed	Pressure Test	ASME Code Stamped (Yes or No)
MUWTP 0-1	Ingersoll-Rand	1171-4169	N/A	60035397-0011	MUWTP1	1985	Installed, (1)	<input type="checkbox"/>	No
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	

7. Description of Work (1) Replaced mech seal gland plate,

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐
 Other ☐ Pressure PSIG Test Temp. °F

9. Remarks

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI

Type Code Symbol Stamp N/A Certificate of Authorization No. N/A Expiration Date N/A

Signed R. D. Nugent Engineering Manager 6/3/13
 (Owner or Owner's Designee) (Title) (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, And employed by HSB-CT of Hartford, CT
 have inspected the components described in this Owner's Report during the period 7/05, 2011 to 4/22, 2013,
 and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in the Owner's Report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Kenny D. Kim Inspector 6-3-2013 Commissions CA 1828 - NB 9990 A.N.I.C
 (Title) (Date) (State or Province, National Board)

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code Section XI

1. Owner Pacific Gas and Electric Company Date 5/20/2013
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 1

2. Plant Diablo Canyon Power Plant Unit 2
P.O. Box 56, Avila Beach, CA 93424

3. Work Performed by Owner
See Above Repair Org. P.O. No., Job No., etc.

4. Identification of System Saltwater System (17)

5. (a) Applicable Construction Code (See R/R Plans) Edition, Addenda, Code Case,
(b) Applicable Edition of Section XI Utilized for Repair / Replacement Activity - 2001 Addenda, 02 / 03
(c) Applicable Section XI Code Case(s), None

6. Identification of components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Corrected, Removed, or Installed	Pressure Test	ASME Code Stamped (Yes or No)
CCWHE 2-2	Yuba	16406	N/A	60039884-0020	CCWHE2	1971	Installed, (1)	<input type="checkbox"/>	Yes
ASW PP 2-1	Bingham Int'l	290600	N/A	60050239-0010	ASWP1	2005	Installed, (2)	<input type="checkbox"/>	No
SW-2-185	Anchor Darling	E3418-1-4 *	N/A	60054191-0010	Line-687-24"	1998	Installed, (3)	<input checked="" type="checkbox"/>	No
ASW PP 2-1	Bingham Int'l	290600	N/A	64079301-0300	ASWP1	2005	Installed, (4)	<input type="checkbox"/>	No
ASW PP 2-1	Bingham Int'l	290600	N/A	64095193-0300	ASWP1	2005	Installed, (4)	<input type="checkbox"/>	No

7. Description of Work (1) Installed two tube plugs by welding, (2) Drill/Tap new stuffing box stud holes & replace stuffing box studs and nuts,
(3) Replace Valve, (4) Replace stuffing box studs and nuts,

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐
Other ☐ Pressure see rmks PSIG Test Temp. see rmks °F

9. Remarks ASW train 2-1 in service with discharge header at 44 psig.
* = Manufacturer's Code Data Report attached.

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI

Type Code Symbol Stamp N/A Certificate of Authorization No. N/A Expiration Date N/A

Signed Patrick Nugent Engineering Manager 6/3/13
(Owner or Owner's Designee) (Title) (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, And employed by HSB-CT of Hartford, CT
have inspected the components described in this Owner's Report during the period 7/05, 2011 to 4/22, 2013,
and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in the Owner's Report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Kenny D. Kim Inspector 6-3-2013 Commissions CA 1828 - NB 9990 A.N.I.C
(Title) (Date) (State or Province, National Board)

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

1. Manufactured by Anchor/Darling Valve Co., 701 First St., Williamsport, PA 17701
(Name and Address of Manufacturer)
2. Manufactured for Pacific Gas & Electric Co., P.O. Box 7760, San Francisco, CA 94120
(Name and Address of Purchaser or Owner)
3. Location of Installation 8.5 Miles North West of Avila Beach, CA 93424 (Diablo Canyon Plant)
(Name and Address)
4. Pump or Valve Valve Nominal Inlet Size 1 1/2" Outlet Size 1 1/2"
(Inch) (Inch)

	(a) Model No., Series No. or Type	(b) N Certificate Holder's Serial No.	(c) Canadian Registration No.	(d) Drawing No.	(e) Class	(f) Nat'l. Ed. No.	(g) Year Built
(1)	Flex Wedge Gate	E-3418-1-4	N/A	W8422102 R/D	3	N/A	1985
(2)							
(3)							
(4)							
(5)							
(6)							
(7)							
(8)							
(9)							
(10)							

5. 1-1/2" 150# FW Gate Valve w/7" Handwheel
(Brief description of service for which equipment was designed)

6. Design Conditions 225 psi 140 °F or Valve Pressure Class 150 (1)

7. Cold Working Pressure 230 psi at 100°F.

A. Pressure Retaining Pieces

[illegible]

(1) For manually operated valves only.

* Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8-1/2" x 11", (2) information in items 1, 2 and 5 on this Data Report is included on each sheet, and (3) each sheet is numbered and number of sheets is recorded at top of this form.

Mark No.	Material Spec. No.	Manufacturer	Remarks
(c) Bolting			
Bonnet Stud HT. #GRL	SB150-630	Ronson Mfg., Inc.	
Bonnet Nut HT. #EVF	SB150-630	Vitco Nuclear Products, Inc.	
(d) Other Parts			
Disc HT. #04465 S/N 1	QQ-N-288C	Federal Bronze Products, Inc.	

9. Hydrostatic test 350 psi. Disk Differential test pressure 2.55 psi.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump, or valve, conforms to the rules of construction of the ASME Code for Nuclear Power Plant Components, Section III, Div. 1, Edition 1980.
 Addenda Summer 1982, Code Case No. N133-1, Date 2/21/85
 Signed Anchor/Darling Valve Company by R. L. Stannett
 (In Certificate Holder)
 Our ASME Certificate of Authorization No. N1712 to use the N symbol expires 4/15/86
 (Date)

CERTIFICATION OF DESIGN

Design information on file at Anchor/Darling Valve Co., 701 First St., Williamsport, PA 17701
 Stress analysis report (Class 1 only) on file at N/A
 Design specifications certified by (1) J. V. Rocca
 PE State CA Reg. No. 12982
 Stress analysis certified by (1) N/A
 PE State _____ Reg. No. _____
 (1) Signature not required. List name only.

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State Pennsylvania and employed by Commercial Union Ins. Co. of Boston, Mass. have inspected the pump, or valve, described in this Data Report on 11-9-84 thru 2-22-85, and state that to the best of my knowledge and belief, the N Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection

Date 11-9-84 11-22-85 19 85
Russell E. Montgomery Commissions Pennsylvania WC972
 (Next Ed., State, Prev. and No.)

FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code Section XI

1. Owner Pacific Gas and Electric Company Date 5/20/2013
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 1

2. Plant Diablo Canyon Power Plant Unit 2
P.O. Box 56, Avila Beach, CA 93424

3. Work Performed by Owner
See Above Repair Org. P.O. No., Job No., etc.

4. Identification of System Liquid Radwaste System (19)

5. (a) Applicable Construction Code (See R/R Plans) Edition, Addenda, Code Case,
(b) Applicable Edition of Section XI Utilized for Repair / Replacement Activity - 2001 Addenda, 02 / 03
(c) Applicable Section XI Code Case(s), None

6. Identification of components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Corrected, Removed, or Installed	Pressure Test	ASME Code Stamped (Yes or No)
LWS-2-FCV-501	Contromatics Inc.	N/F	N/A	64014373-0100	Line-529-2"	1985	Installed, (1)	<input type="checkbox"/>	No
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	

7. Description of Work (1) Replaced internals,

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐
Other ☐ Pressure PSIG Test Temp. °F

9. Remarks

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI

Type Code Symbol Stamp N/A Certificate of Authorization No. N/A Expiration Date N/A

Signed Patrick Nugent Engineering Manager 6/3/13
(Owner or Owner's Designee) (Title) (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, And employed by HSB-CT of Hartford, CT
have inspected the components described in this Owner's Report during the period 7/05, 2011 to 4/22, 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in the Owner's Report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Kenny D. Kim Inspector 6-3-2013 Commissions CA 1828 - NB 9990 A.N.I.C.
(Title) (Date) (State or Province, National Board)

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code Section XI

1. Owner Pacific Gas and Electric Company Date 5/20/2013
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 1

2. Plant Diablo Canyon Power Plant Unit 2
P.O. Box 56, Avila Beach, CA 93424

3. Work Performed by Owner
See Above Repair Org. P.O. No., Job No., etc.

4. Identification of System Diesel Engine Generator System (21)

5. (a) Applicable Construction Code (See R/R Plans) Edition, Addenda, Code Case,
(b) Applicable Edition of Section XI Utilized for Repair / Replacement Activity - 2001 Addenda, 02 / 03
(c) Applicable Section XI Code Case(s), None

6. Identification of components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Corrected, Removed, or Installed	Pressure Test	ASME Code Stamped (Yes or No)
DEG 2-3	BASCO Div / American Precision	900400-011	32798	60052448-0100	DEG3 LOHX	1990	Corrected, (1)	<input type="checkbox"/>	Yes
DEG 2-3	Alco Power Inc.	N/A	N/A	64005101-0100	DEG3	Unk	Installed, (2)	<input checked="" type="checkbox"/>	No
DEG 2-2	Alco Power Inc.	N/A	N/A	64021160-0100	RV-71	Unk	Installed, (3)	<input type="checkbox"/>	No
DEG 2-1	Alco Power Inc.	N/A	N/A	64021302-0100	RV-72	Unk	Installed, (3)	<input type="checkbox"/>	No
DEG 2-3	Alco Power Inc.	N/A	N/A	64021304-0100	RV-75	Unk	Installed, (3)	<input type="checkbox"/>	No

7. Description of Work (1) Machine LOHX channel head cover flat, (2) Replaced Jacket Water Couplings, clamps and bolting as needed,
(3) Replaced expansion tank cap,

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
Other ☐ Pressure 55 PSIG Test Temp. 160 °F

9. Remarks

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI

Type Code Symbol Stamp N/A Certificate of Authorization No. N/A Expiration Date N/A
Signed Patrick Nugent Engineering Manager 6/2/13
(Owner or Owner's Designee) (Title) (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, And employed by HSB-CT of Hartford, CT
have inspected the components described in this Owner's Report during the period 7/05, 2011 to 4/22, 2013,
and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in the Owner's Report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Kenny D. Kim Inspector 6-3-2013 Commissions CA 1828 - NB 9990 A.N.I.C
(Title) (Date) (State or Province, National Board)

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code Section XI

1. Owner Pacific Gas and Electric Company Date 5/20/2013
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 1

2. Plant Diablo Canyon Power Plant Unit 2
P.O. Box 56, Avila Beach, CA 93424

3. Work Performed by Owner Repair Org. P.O. No., Job No., etc.
See Above

4. Identification of System HVAC System (23)

5. (a) Applicable Construction Code (See R/R Plans) Edition, Addenda, Code Case,
 (b) Applicable Edition of Section XI Utilized for Repair / Replacement Activity - 2001 Addenda, 02 / 03
 (c) Applicable Section XI Code Case(s), None

6. Identification of components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Corrected, Removed, or Installed	Pressure Test	ASME Code Stamped (Yes or No)
VAC-2-200	Mission Drilling Prod Div	D7679 *	N/A	64015060-0100	Line-4388-4"	1985	Installed, (1)	<input checked="" type="checkbox"/>	No
VAC-2-201	Mission Drilling Prod Div	D7678 *	N/A	64015061-0100	Line-4389-4"	1985	Installed, (1)	<input checked="" type="checkbox"/>	No
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	

7. Description of Work (1) Replaced valve,

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐
 Other ☐ Pressure see rmks PSIG Test Temp. see rmks °F

9. Remarks Pressure testing satisfied by LLRT
* = Manufacturer's Code Data Report attached.

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI

Type Code Symbol Stamp N/A Certificate of Authorization No. N/A Expiration Date N/A

Signed Patrick Nugent Engineering Manager 6/3/13
 (Owner or Owner's Designee) (Title) (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, And employed by HSB-CT of Hartford, CT
 have inspected the components described in this Owner's Report during the period 7/05, 2011 to 4/22, 2013, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in the Owner's Report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Kenny D. Kim Inspector 6-3-2013 Commissions CA 1828 - NB 9990 A.N.I.C
 (Title) (Date) (State or Province, National Board)

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NPV-1 (Back) --- Pg. 2 of 2

Certificate Holder's Serial No. D7678, D7679

8. Design conditions _____ or valve pressure class _____ (1)
(pressure) (temperature)
9. Cold working pressure _____ at 100°F
285 psi
10. Hydrostatic test _____ Disk differential test pressure _____
450 psi 315 psi
11. Remarks: PO #136943 PO Item #02 CNI SO #32977-04
Pin Retainers - Ht Code: ASE

CERTIFICATION OF DESIGN


Design Specifications certified by Kersi J. Dalal P.E. State CA Reg. no. M-16690

Design Report certified by N/A P.E. State N/A Reg. no. N/A

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this pump or valve conforms to the rules for construction of the ASME Code, Section III, Division 1.


N Certificate of Authorization No.. N-2899 Expires September 24, 2011

Date 11/26/08 Name CRANE Nuclear, Inc. Signed 
(N Certificate Holder) Senior Quality Assurance Engineer

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of Illinois and employed by HSBCT of Hartford, CT have inspected the pump, or valve, described in this Data Report on 11/26/08 and state that to the best of my knowledge and belief, the Certificate Holder has constructed this pump, or valve, in accordance with the ASME Code, Section III, Division 1.

By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the Component described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 11/26/08 Signed  Commissions IL 932
(Nat'l. Bd. (incl. endorsements) and state or prov. and no.)

(1) For manually operated valves only.

FORM NIS-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT ACTIVITY
As Required by the Provisions of the ASME Code Section XI

1. Owner Pacific Gas and Electric Company Date 5/20/2013
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 1

2. Plant Diablo Canyon Power Plant Unit 2
P.O. Box 56, Avila Beach, CA 93424

3. Work Performed by Owner Repair Org. P.O. No., Job No., etc.
See Above

4. Identification of System Incore Flux Mapping System (48)

5. (a) Applicable Construction Code (See R/R Plans) Edition, Addenda, Code Case,
 (b) Applicable Edition of Section XI Utilized for Repair / Replacement Activity - 2001 Addenda, 02 / 03
 (c) Applicable Section XI Code Case(s), None

6. Identification of components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Corrected, Removed, or Installed	Pressure Test	ASME Code Stamped (Yes or No)
U2 Seal Table	Westinghouse	N/A	N/A	60054427-0010	See Remarks	1985	Installed, (1)	<input type="checkbox"/>	Yes
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	

7. Description of Work (1) Replaced Class-1 tubing fittings as needed at seal table,

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐
 Other ☐ Pressure PSIG Test Temp. °F

9. Remarks Fittings replaced at locations: A11, B13, C08, D10, E05, F08, G12, H11, J07, K06, L05, L08, P09, R06 & R11

CERTIFICATE OF COMPLIANCE

I certify that the statements made in the report are correct and that this conforms to the requirements of the ASME Code, Section XI

Type Code Symbol Stamp N/A Certificate of Authorization No. N/A Expiration Date N/A

Signed Patrick Nugent Engineering Manager 6/3/13
 (Owner or Owner's Designee) (Title) (Date)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of California, And employed by HSB-CT of Hartford, CT
 have inspected the components described in this Owner's Report during the period 7/05, 2011 to 4/22, 2013,
 and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in the Owner's Report in accordance with the requirements of the ASME Code, Section XI. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Kenny D. Kim Inspector 6-3-2013 Commissions CA 1828 - NB 9990 A.N.I.C
 (Title) (Date) (State or Province, National Board)

Note: Supplemental sheets in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.