



**Pacific Gas and  
Electric Company®**

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March 3, 2006

PG&E Letter DCL-06-031

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


Docket No. 50-275, OL-DPR-80  
Diablo Canyon Power Plant Unit 1  
Inservice Inspection Report for Unit 1 Thirteenth Refueling Outage

Dear Commissioners and Staff:

In accordance with ASME Section XI, paragraph IWA 6230, enclosed is the Diablo Canyon Power Plant Inservice Inspection (ISI) Report. This report provides the results of the Unit 1 Thirteenth Refueling Outage inservice inspections of Class 1 and Class 2 components and supports.

If you have any questions regarding the information enclosed or other ISI Program activities, please contact Susan Westcott, Manager Technical Support Engineering, at (805) 545-3815.

Sincerely,



Donna Jacobs

ddm/469/A0625811

Enclosure

cc/enc: Bruce S. Mallett, NRC Region IV  
Terry W. Jackson, NRC Senior Resident  
Alan B. Wang, NRC Project Manager  
State of California, Pressure Vessel Unit  
cc: Diablo Distribution

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Enclosure  
PG&E Letter DCL-06-031

**INSERVICE INSPECTION REPORT FOR  
DCPP UNIT 1 THIRTEENTH REFUELING OUTAGE**

Diablo Canyon Power Plant

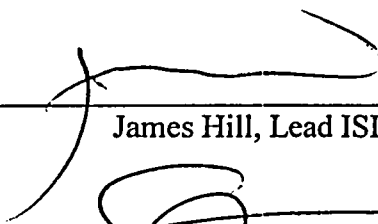
Unit 1

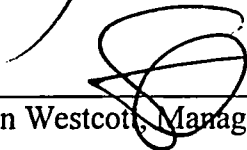
USNRC Docket No. 50-275

Operating License No. DPR-80

Commercial Operation Date, May 7, 1985

Prepared By:    
Thomas L. Alcott and Chris Beard, ISI Specialists

Reviewed By:   
James Hill, Lead ISI Specialist

Approved By:   
Susan Westcott, 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.

ORIGINAL

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**SECTION A**  
**INTRODUCTION**

## SECTION A

### INTRODUCTION

Inservice inspection (ISI) of scheduled ASME Section XI Class 1 and 2 components and their supports at Pacific Gas and Electric Company's Diablo Canyon Power Plant (DCPP) Unit 1 was completed during the thirteenth refueling outage from October through December, 2005. The DCPP Unit 1 thirteenth refueling outage (1R13) was the second outage in the third period and the last outage within the second 10-year ISI interval.

In addition to the ASME Code examinations reported here, a 100% ultrasonic examination and bare metal examination was conducted on the reactor vessel top head penetration nozzles. No evidence of boric acid leakage was found. The results are on file at the plant site.

This report is submitted as required by ASME Section XI, paragraph IWA-6220, and is organized in several sections. An introduction is provided in Section A. Section B contains the completed ASME Code Data 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.

The ten year, end of 2nd interval, ISI examination of the reactor vessel was completed during 1R13 and the exam dates are documented in the Class-1 section of this report.

System pressure tests on Class 1 and 2 systems conducted during the period following 1R12, and up to and including 1R13, are reported in Section E.

Appendix J, Containment penetration pressure test are reported in Section F.

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

Augmented exams are reported in Section H.

Section I of this report, Repairs and Replacements, contains the completed ASME Code Data Report Form NIS-2 for those 1R13 work packages closed prior to January 4, 2006 and for any pre-1R13 work packages closed after July 7, 2004. NIS-2 reports for 1R13 work packages that are closed after January 4, 2006 will be included in the next outage report. Corrective actions and work order package documentation are on file at DCPP and are referenced by work order number in the NIS-2 reports.

**SECTION B**

**ASME CODE DATA NIS-1 FORMS**

**FORM NIS-1 OWNER'S DATA 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 One 4. Owner Certificate of Authorization (if required) N/A
5. Commercial Service Date 05/07/85 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 66104	11475-76	20760
Reactor Vessel Head	Combustion Engineering Westinghouse	CE 66204	11475-76	20760
Steam Gen 1-1	Westinghouse	1041	N/A	68-12
Steam Gen 1-2	Westinghouse	1042	N/A	68-13
Steam Gen 1-3	Westinghouse	1043	N/A	68-14
Steam Gen 1-4	Westinghouse	1044	N/A	68-15
Pressurizer	Westinghouse	1051	N/A	68-30
Reactor Coolant Pump 1-2	Westinghouse	507	N/A	N/A
Reactor Coolant Pump 1-3	Westinghouse	508	N/A	N/A
Class 1 Valves	Various	N/A	N/A	N/A
Class 1 Supports	Various	N/A	N/A	N/A
Class 1 Piping	Wismer & Becker/Kellogg	N/A	N/A	N/A

Note: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 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 10/05 to 12/05
9. Inspection Period Identification: Third (12<sup>th</sup> to 13<sup>th</sup>)
10. Inspection Interval Identification: Second
11. Applicable Edition of Section XI 1989 Addenda None
12. Date/Revision of Inspection Plan: December 2002, Revision 2
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
12. 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 FEB 06 2006 Signed Engineering Manager By [Signature]  
 Owner Susan Westcott

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of California and employed by HSB-CT of Harford, CT have inspected the components described in this Owners' Data Report during the period 10/05 to 12/05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owners' Data 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 Owners' 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 2-10 2006

Kenny Kim Commissions CA 1828, NB 9990 A.N.I.C.  
 Inspector's Signature/Kenny Kim National Board, State, Province and No.

[illegible]

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FORM NIS-1 (back)

8. Examination Dates 10/05 to 12/05
9. Inspection Period Identification: Third (12<sup>th</sup> to 13<sup>th</sup>)
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14. Abstract of Results of Examinations and Tests. Refer to ISI Report
12. 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 2/06 20 06 Signed Engineering Manager By Susan Westcott  
 Owner

**CERTIFICATE OF INSERVICE INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of California and employed by HSB-CT of Harford, CT have inspected the components described in this Owners' Data Report during the period 10/05 to 12/05, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owners' Data 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 Owners' 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 2-10 20 06

Kenny Kim Commissions CA 1828, NB 9990 A.N.I.C.  
 Inspector's Signature/Kenny Kim National Board, State, Province and No.

**SECTION C**  
**CLASS ONE COMPONENTS**

PG&amp;E

DIABLO CANYON POWER PLANT - UNIT 1

SECOND INTERVAL, THIRD PERIOD, SECOND REFUELING OUTAGE REPORT

MAJOR ITEM: REACTOR VESSEL

(1R13)

ASME SECTION XI SYSTEMS - CLASS 1

PAGE 1 of 6

CATEGORY ITEM	DESCRIPTION	COMPONENT / LINE	WELD OR COMPONENT NO.	EXAM TYPE	EXAM DATE	COMMENTS	RESULTS
B-A							
B1.11	Shell Welds - Circumferential	RPV 1	8-442 Upper-Intermed	UT	11-4-05		NRI
			9-442 Intermed-Lower	UT	11-4-05		NRI
			10-442 Lower-Bott Hd	UT	11-5-05	Exam limited to 75.36%, Relief Request NDE-SLH	NRI
B1.12	Shell Welds - Longitudinal	RPV 1	1-442A Upper Shell	UT	11-8-05		NRI
			1-442B Upper Shell	UT	11-8-05		NRI
			1-442C Upper Shell	UT	11-8-05		NRI
			2-442A Interm Course	UT	11-4-05		NRI
			2-442B Interm Course	UT	11-4-05		NRI
			2-442C Interm Course	UT	11-4-05		NRI
			3-442A Lower Course	UT	11-5-05		NRI

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DIABLO CANYON POWER PLANT - UNIT 1

SECOND INTERVAL, THIRD PERIOD, SECOND REFUELING OUTAGE REPORT  
(1R13)  
ASME SECTION XI SYSTEMS - CLASS 1

MAJOR ITEM: REACTOR VESSEL

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CATEGORY ITEM	DESCRIPTION	COMPONENT / LINE	WELD OR COMPONENT NO.	EXAM TYPE	EXAM DATE	COMMENTS	RESULTS
B1.12 cont'd			3-442B Lower Course	UT	11-5-05		NRI
			3-442C Lower Course	UT	11-5-05		NRI
B1.21	Head Welds - Circumferential		4-443 Bottom Head	UT	11-6-05	Exam limited to 67.68%; Relief Request NDE-2	NRI
B1.22	Head Welds - Meridional	RPV 1 Bottom Hd	1-443A	UT	11-5-05		NRI
			1-443B	UT	11-5-05	Exam limited to 70.0%, Relief Request NDE-3 R1	NRI
			1-443C	UT	11-5-05		NRI
			1-443D	UT	11-5-05		NRI
			1-443E	UT	11-5-05		NRI
			1-443F	UT	11-5-05	Exam limited to 79.5%, Relief Request NDE-3 R1	NRI
B1.30	Shell to Flange Weld from flange	RPV 1	7-442 Hole 54-27 (cw)	UT	10-29-05		NRI
	Shell to Flange Weld from shell	RPV 1	7-442	UT	11-8-05		NRI

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DIABLO CANYON POWER PLANT - UNIT 1

SECOND INTERVAL, THIRD PERIOD, SECOND REFUELING OUTAGE REPORT  
(1R13)  
ASME SECTION XI SYSTEMS - CLASS 1

MAJOR ITEM: REACTOR VESSEL

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CATEGORY ITEM	DESCRIPTION	COMPONENT / LINE	WELD OR COMPONENT NO.	EXAM TYPE	EXAM DATE	COMMENTS	RESULTS
B-D							
B3.90	Outlet Nozzle to Vessel Weld	RPV 1 to *1-29SPL	338° (from Bore)	UT	11-6-05		NRI
			338° (from Shell)	UT	11-7-05	Exam limited to 84.07%, Relief Request NDE-6B	NRI
		RPV 1 to *2-29SPL	22° (from Bore)	UT	11-4-05		NRI
			22° (from Shell)	UT	11-7-05	Exam limited to 84.07%, Relief Request NDE-6B	NRI
		RPV 1 to *3-29SPL	158° (from Bore)	UT	11-6-05		NRI
			158° (from Shell)	UT	11-7-05	Exam limited to 84.07%, Relief Request NDE-6B	NRI
		RPV 1 to *4-29SPL	202° (from Bore)	UT	11-4-05		NRI
			202° (from Shell)	UT	11-7-05	Exam limited to 84.07%, Relief Request NDE-6B	NRI
	Inlet Nozzle to Vessel Weld	RPV 1 to *9-27.5SPL	293° (from Bore)	UT	11-4-05		NRI
			293° (from Shell)	UT	11-7-05		NRI

SECOND INTERVAL, THIRD PERIOD, SECOND REFUELING OUTAGE REPORT  
(1R13)  
ASME SECTION XI SYSTEMS - CLASS 1

MAJOR ITEM: REACTOR VESSEL

PAGE 4 of 6

CATEGORY ITEM	DESCRIPTION	COMPONENT / LINE	WELD OR COMPONENT NO.	EXAM TYPE	EXAM DATE	COMMENTS	RESULTS
B3.90 cont'd		RPV 1 to *10-27.5SPL	67° (from Bore)	UT	11-4-05		NRI
			67° (from Shell)	UT	11-7-05		NRI
		RPV 1 to *11-27.5SPL	113° (from Bore)	UT	11-4-05		NRI
			113° (from Shell)	UT	11-7-05		NRI
		RPV 1 to *12-27.5SPL	247° (from Bore)	UT	11-4-05		NRI
			247° (from Shell)	UT	11-7-05		NRI
B3.100	Outlet Nozzle Inside Radius	RPV 1 to *1-29SPL	338°	VT-1	11-2-05	Code Case N-648-1	NRI
		RPV 1 to *2-29SPL	22°	VT-1	11-2-05	Code Case N-648-1	NRI
		RPV 1 to *3-29SPL	158°	VT-1	11-2-05	Code Case N-648-1	NRI
		RPV 1 to *4-29SPL	202°	VT-1	11-2-05	Code Case N-648-1	NRI
	Inlet Nozzle Inside Radius	RPV 1 to *9-27.5SPL	293°	VT-1	11-2-05	Code Case N-648-1	NRI

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DIABLO CANYON POWER PLANT - UNIT 1

## SECOND INTERVAL, THIRD PERIOD, SECOND REFUELING OUTAGE REPORT

MAJOR ITEM: REACTOR VESSEL

(1R13)

ASME SECTION XI SYSTEMS - CLASS 1

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CATEGORY ITEM	DESCRIPTION	COMPONENT / LINE	WELD OR COMPONENT NO.	EXAM TYPE	EXAM DATE	COMMENTS	RESULTS
B3.100 cont'd		RPV 1 to *10-27.5SPL	67°	VT-1	11-2-05	Code Case N-648-1	NRI
		RPV 1 to *11-27.5SPL	113°	VT-1	11-2-05	Code Case N-648-1	NRI
		RPV 1 to *12-27.5SPL	247°	VT-1	11-2-05	Code Case N-648-1	NRI
B-G-1							
B6.40	Threads in Flange	RPV Bolting > 2" diam.	RPV1 Ligament 54 to 27 (cw)	UT	10-29-05		NRI
B-N-1							
B13.10	Reactor Vessel 1 Interior	Reactor Vessel 1 Interior	Reactor Vessel 1 Interior	VT-3	11-2-05	WestDyne "RI" for debris (Removed)	NRI
B13.60	Reactor Vessel 1 Interior	RV1 Interior Attachments	RV1 Interior Attachments	VT-3	11-2-05		NRI
B13.70	RPV 1 Core Support Structure	RV1 Core Support	RV1 Core Support Structure	VT-3	11-3-05		NRI

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DIABLO CANYON POWER PLANT - UNIT 1

SECOND INTERVAL, THIRD PERIOD, SECOND REFUELING OUTAGE REPORT

MAJOR ITEM: REACTOR VESSEL

(1R13)

ASME SECTION XI SYSTEMS - CLASS 1

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CATEGORY ITEM	DESCRIPTION	COMPONENT / LINE	WELD OR COMPONENT NO.	EXAM TYPE	EXAM DATE	COMMENTS	RESULTS
B-G-2							
B7.80	CRD Housings: Bolts <2" diam	RPV1	Part Length CRDM D-6	VT-1	11-15-05	6 Bolts	NRI
			Part Length CRDM D-10	VT-1	11-15-05	6 Bolts	NRI
			Part Length CRDM F-12	VT-1	11-15-05	6 Bolts	NRI

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DIABLO CANYON POWER PLANT - UNIT 1

SECOND INTERVAL, THIRD PERIOD, SECOND REFUELING OUTAGE REPORT  
(1R13)

MAJOR ITEM: PRESSURIZER

ASME SECTION XI SYSTEMS - CLASS 1

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CATEGORY ITEM	DESCRIPTION	COMPONENT / LINE	WELD OR COMPONENT NO.	EXAM TYPE	EXAM DATE	COMMENTS	RESULTS
B-B							
B2.11	Shell to Bottom Head Circ Weld	Pressurizer 1	Girth 1 - one third	UT	11-3-05		NRI
	Shell to Upper Head Circ Weld	Pressurizer 1	Girth 5 - one third	UT	10-27-05		NRI
B2.12	Shell to Bottom Head Long'l Weld	Pressurizer 1	Long'l 6 - twelve inches	UT	11-3-05		NRI
B-D							
B3.120	Safety Line Nozz. Inside Radius	Pressurizer 1 to S6-728-6SPL	Inside Radius Section	UT	10-27-05		NRI
B-H							
B8.20	Pressurizer 1 Support Skirt Weld	Pressurizer 1	Girth 10 - one third	UT	11-3-05		NRI

SECOND INTERVAL, THIRD PERIOD, SECOND REFUELING OUTAGE REPORT  
(1R13)

## MAJOR ITEM: STEAM GENERATORS

## ASME SECTION XI SYSTEMS - CLASS 1

CAT B16.20

STEAM GENERATOR TUBING

PAGE 1 of 1

The following percentages apply to inservice tubes.

SCOPE	PROBE TYPE	SG 11	SG 12	SG 13	SG 14
Full length (except Rows 1 and 2 U-bends)	Bobbin	100%	100%	100%	100%
Rows 1 to 10 U-bends	Plus Point	100%	100%	100%	100%
Repeat PWSCC indications at dents and top of tubesheet	Plus Point	100%	100%	100%	100%
Hot Leg top-of tubesheet	Plus Point	100%	100%	100%	100%
≥ 5 volt dented TSP intersections	Plus Point (Note 1)	100% 1H to 4H 20% 5H to 7H	100% 1H to 7C 20% 6C	20% 1H to 7H	100% 1H to 6H 20% 7H
> 2 and < 5 volt dented TSP intersections	Plus Point (Note 1)	100% 1H to 4H 20% 5H	100% 1H to 7C 20% 6C	20% 1H	100% 1H to 6H 20% 7H
>2 volt dented TSP intersections never inspected by Plus Point	Plus Point	100%	100%	100%	100%
≤ 2 volt dented TSP intersections	Plus Point (Note 1)	100% 1H 20% 2H	NA	NA	NA
≥ 1.7 volt distorted OD bobbin signals (DOS) at TSP intersections	Plus Point	100%	100%	100%	100%
Distorted ID bobbin signals (DIS) at TSP intersections	Plus Point	100%	100%	100%	100%
Free span dings	Plus Point	20%	20%	20%	20%
TSP ligament indications	Plus Point	100%	100%	100%	100%
Tubes plugged		38	43	16	19

Note 1: For each 20% sample, inspect at least 50 dents, or else inspect 100% if there are less than 50 dents.

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DIABLO CANYON POWER PLANT - UNIT 1

SECOND INTERVAL, THIRD PERIOD, SECOND REFUELING OUTAGE REPORT  
(1R13)  
ASME SECTION XI SYSTEMS - CLASS 1

MAJOR ITEM: BOLTING

PAGE 1 of 2

CATEGORY ITEM	DESCRIPTION	COMPONENT / LINE	WELD OR COMPONENT NO.	EXAM TYPE	EXAM DATE	COMMENTS	RESULTS
B-G-1							
B6.190	RCP Flange Surface	Pump Bolting > 2" diam.	RCP 1-2	VT-1	11-10-05		NRI
B-G-2							
B7.50	Pipe Flange Bolting	Pipe Bolting < 2" diam.	S6-1993-1.5 (FE-926)	VT-1	11-11-05	4 Studs & Nuts	NRI
			S6-1993-1.5 (RO 561)	VT-1	11-11-05	4 Studs & Nuts	NRI
			S6-1994-1.5 (FE-927)	VT-1	11-11-05	4 Studs & Nuts	NRI
			S6-1994-1.5 (RO 562)	VT-1	11-11-05	4 Studs & Nuts	NRI
B7.60	RC Pump 1-3 Seal House Bolts	Pump Bolting < 2" diam	4 Bolts	VT-1	11-13-05	12 bolts examined, credit taken for 4	NRI
B7.70	Valve Bolts < 2" diam	S6-237-6SPL+	V-8949C	VT-1	10-29-05	12 Studs & Nuts	NRI
		S6-238-6SPL+	V-8949D	VT-1	11-3-05	12 Studs & Nuts	NRI

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DIABLO CANYON POWER PLANT - UNIT 1

SECOND INTERVAL, THIRD PERIOD, SECOND REFUELING OUTAGE REPORT  
(1R13)  
ASME SECTION XI SYSTEMS - CLASS 1

MAJOR ITEM: BOLTING

PAGE 2 of 2

CATEGORY ITEM	DESCRIPTION	COMPONENT / LINE	WELD OR COMPONENT NO.	EXAM TYPE	EXAM DATE	COMMENTS	RESULTS
B7.70 cont'd		S6-3846-6SPL+	V-8818C	VT-1	11-3-05	12 Studs & Nuts	NRI
		S6-3847-6SPL+	V-8818D	VT-1	11-3-05	12 Studs & Nuts	NRI
		S6-727-6	RV-8010C	VT-1	11-17-05	8 Bonnet Studs & Nuts	NRI

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DIABLO CANYON POWER PLANT - UNIT 1

SECOND INTERVAL, THIRD PERIOD, SECOND REFUELING OUTAGE REPORT

MAJOR ITEM: PUMPS and VALVES

(1R13)

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-L-2							
B12.20	RC Pump 1-2: Pump Casing	RCP 1-2 Pump Casing	RCP 1-2 Pump Casing Interior	VT-3	11-11-05		NRI
B-M-2							
B12.50	Valve Interior	S6-253-10SPL+	V-8956C Interior	VT-3	11-11-05		NRI
		S6-727-6SPL+	RV-8010C Interior	VT-3	10-29-05		NRI

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DIABLO CANYON POWER PLANT - UNIT 1

SECOND INTERVAL, THIRD PERIOD, SECOND REFUELING OUTAGE REPORT  
(1R13)  
ASME SECTION XI SYSTEMS - CLASS 1

MAJOR ITEM: PIPING

PAGE 1 of 3

CATEGORY ITEM	DESCRIPTION	COMPONENT / LINE	WELD OR COMPONENT NO.	EXAM TYPE	EXAM DATE	COMMENTS	RESULTS
RI-ISI (RB)	Pressurizer Spray Line	S6-15-4SPL	WIB-378	UT	11-11-05		NRI
			WIB-377	UT	11-11-05		NRI
			WIB-376	UT	11-11-05		NRI
			WIB-383	UT	11-11-05		NRI
	Pressurizer Surge Line	*16-14SPL	WIB-66	UT	11-17-05		NRI
			WIB-65A	UT	11-17-05		NRI
	RC Out Loop 1	*1-29SPL	WIB-RC-1-1(SE)	UT	11-5-05	1) Westinghouse Automated 2) Not Required Per Program Plan.	NRI
			WIB-RC-1-1	UT	11-5-05	1) Westinghouse Automated 2) Not Required Per Program Plan.	NRI
	RC Out Loop 2	*2-29SPL	WIB-RC-2-1(SE)	UT	11-6-05	1) Westinghouse Automated 2) Not Required Per Program Plan.	NRI
			WIB-RC-2-1	UT	11-6-05	1) Westinghouse Automated 2) Not Required Per Program Plan.	NRI

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DIABLO CANYON POWER PLANT - UNIT 1

SECOND INTERVAL, THIRD PERIOD, SECOND REFUELING OUTAGE REPORT  
(1R13)

MAJOR ITEM: PIPING

ASME SECTION XI SYSTEMS - CLASS 1

PAGE 2 of 3

CATEGORY ITEM	DESCRIPTION	COMPONENT / LINE	WELD OR COMPONENT NO.	EXAM TYPE	EXAM DATE	COMMENTS	RESULTS
RI-ISI cont'd	RC Out Loop 3	*3-29SPL	WIB-RC-3-1(SE)	UT	11-6-05	1) Westinghouse Automated 2) Not Required Per Program Plan.	NRI
			WIB-RC-3-1	UT	11-6-05	1) Westinghouse Automated 2) Not Required Per Program Plan.	NRI
	RC Out Loop 4	*4-29SPL	WIB-RC-4-1(SE)	UT	11-6-05	1) Westinghouse Automated 2) Not Required Per Program Plan.	NRI
			WIB-RC-4-1	UT	11-6-05	1) Westinghouse Automated 2) Not Required Per Program Plan.	NRI
	RC Pump Disch Lp 1	*9-27.5SPL	WIB-RC-1-18	UT	11-6-05	1) Westinghouse Automated 2) Not Required Per Program Plan.	NRI
			WIB-RC-1-18(SE)	UT	11-6-05	1) Westinghouse Automated 2) Not Required Per Program Plan.	NRI
	RC Pump Disch Lp 2	*10-27.5SPL	WIB-RC-2-20	UT	11-6-05	1) Westinghouse Automated 2) Not Required Per Program Plan.	NRI
			WIB-RC-2-20(SE)	UT	11-6-05	1) Westinghouse Automated 2) Not Required Per Program Plan.	NRI
	RC Pump Disch Lp 3	*11-27.5SPL	WIB-RC-3-18	UT	11-6-05	1) Westinghouse Automated 2) Not Required Per Program Plan.	NRI
			WIB-RC-3-18(SE)	UT	11-6-05	1) Westinghouse Automated 2) Not Required Per Program Plan.	NRI

PG&amp;E

DIABLO CANYON POWER PLANT - UNIT 1

SECOND INTERVAL, THIRD PERIOD, SECOND REFUELING OUTAGE REPORT  
(1R13)

MAJOR ITEM: PIPING

ASME SECTION XI SYSTEMS - CLASS 1

PAGE 3 of 3

CATEGORY ITEM	DESCRIPTION	COMPONENT / LINE	WELD OR COMPONENT NO.	EXAM TYPE	EXAM DATE	COMMENTS	RESULTS
RI-ISI cont'd	RC Pump Disch Lp 4	*12-27.5SPL	WIB-RC-4-18	UT	11-6-05	1) Westinghouse Automated 2) Not Required Per Program Plan.	NRI
			WIB-RC-4-18(SE)	UT	11-6-05	1) Westinghouse Automated 2) Not Required Per Program Plan.	NRI
	Letdown Line Loop 2	S6-24-3SPL	WIB-111	UT	11-7-05		NRI
			WIB-112	UT	11-7-05		NRI
	Letdown Line Loop 2	S6-24-3SPL	WIB-116	UT	11-7-05		NRI
			WIB-118	UT	11-7-05		NRI

PG&E

DIABLO CANYON POWER PLANT - UNIT 1

---

SECOND INTERVAL, THIRD PERIOD, SECOND REFUELING OUTAGE REPORT

MAJOR ITEM: SUPPORTS

(1R13)

ASME SECTION XI SYSTEMS - CLASS 1

PAGE 1 of 1

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CATEGORY

F-A

SUPPORTS

F1.10 TO F1.70

SUPPORT COMPONENTS

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The required inservice inspection was performed on 1 Class 1 hanger during the thirteenth refueling outage on the date of 11/01/06. The support was found acceptable. Data report is on file.

LINE

SUPPORT

Pressurizer - 1

Support Skirt

## **SECTION D**

### **CLASS TWO COMPONENTS**

PG&amp;E

DIABLO CANYON POWER PLANT - UNIT 1

SECOND INTERVAL, THIRD PERIOD, SECOND REFUELING OUTAGE REPORT

MAJOR ITEM: VESSELS

(1R13)

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							
C1.20	Head Circ.Welds	RHR Heat Exchanger 1-2	Girth Weld GD (#4) (Head-to-Shell)	PT	10-21-05		NRI
C-B							
C2.21	Nozzles in Vessels >1/2" wall	RHR HX 1-2 to S1-119-8	Outlet Nozzle-to- Shell Weld #6 (N2)	PT	10-21-05		NRI

PG&E

DIABLO CANYON POWER PLANT - UNIT 1

SECOND INTERVAL, THIRD PERIOD, SECOND REFUELING OUTAGE REPORT  
(1R13)

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)	RC Pps Barrier CCW Ret Hdr	K17-1357-6	WIC-1357A	UT	11-4-05		NRI
			RB-1357-6	UT	11-4-05		NRI

PG&E

DIABLO CANYON POWER PLANT - UNIT 1

SECOND INTERVAL, THIRD PERIOD, SECOND REFUELING OUTAGE REPORT  
(1R13)  
ASME SECTION XI SYSTEMS - CLASS 2

MAJOR ITEM: PIPING INTEGRAL  
ATTACHMENTS

PAGE 1 of 1

CATEGORY ITEM	DESCRIPTION	COMPONENT / LINE	WELD OR COMPONENT NO.	EXAM TYPE	EXAM DATE	COMMENTS	RESULTS
C-C							
C3.20	Welded Attachment	Line S6-508-8III	58N-49R Attach. X307A-B	PT	10-31-05		NRI
			58N-52A Attach. X426A-C	PT	10-31-05		NRI
		Line S6-54-2	2151-53 Attachment X2814A-B	PT	10-28-05		NRI
			2151-58 Attachment X2818A-B	PT	10-28-05		NRI

SECOND INTERVAL, THIRD PERIOD, SECOND REFUELING OUTAGE REPORT  
(1R13)  
ASME SECTION XI SYSTEMS - CLASS 2

MAJOR ITEM: PIPING SUPPORTS

PAGE 1 of 1

CATEGORY

F-A

SUPPORTS

F1.10 TO F1.70

SUPPORT COMPONENTS

The required inservice inspections were performed on 60 Class 2 hangers prior to and during the thirteenth refueling outage between the dates of 08/05/05 and 11/15/05. Results were found acceptable. Data reports are on file.

LINE	SUPPORT	LINE	SUPPORT	LINE	SUPPORT	LINE	SUPPORT	LINE	SUPPORT
45	73-85A	52	99-1R	54	2151-96	508	56N-140R	1454	54S-18R
48	55S-117R loc1	52	99-7R	54	2151-109	508	58N-53R	1464	73-31
48	55S-117R loc2	52	99-26R	54	2151-119	554	1037-9R	1466	73-74
48	55S-120R loc1	52	99-74A	54	2151-137	554	1048-1R	1466	73-144
48	55S-120R loc2	53	73-42R	54	2155-74	746	57S-110R	1474	73-40R
48	55S-123R	53	73-63R	54	2155-272	746	57S-113R	1974	54S-14R
48	55S-136R	53	74-48R	54	2161-47	746	57S-124R	2033	56S-51R
48	99-1R	54	46-20	228	1020-2V	746	99-26R	2033	288-4A
48	99-7R	54	180-15	228	1021-11R	746	99-197R	2044	512-6R
48	99-87R	54	2151-53	283	56S-105R	1357	5-35R	2046	512-6R
48	99-168R	54	2151-58	508	42-45R	1357	12-47R	3673	1512-25
48	99-219R	54	2151-67	508	56N-120R	1454	54S-16R	3678	73-47A

## **SECTION E**

### **SYSTEM PRESSURE TESTS**

End of 2nd Interval System Hydrostatic Test  
Performed at NOP IAW Code Case N-498-1

PG&amp;E

DIABLO CANYON POWER PLANT -  
UNIT 1

SECOND INTERVAL, THIRD PERIOD, SECOND REFUELING OUTAGE REPORT (1R13)

MAJOR ITEM: PRESSURE TESTS

ASME SECTION XI SYSTEMS - CLASS 1 &amp; 2

PAGE 1 of 4

TEST NO.	CLASS	DESCRIPTION	EXAM DATE	COMMENTS	RESULTS
1	1	Reactor Coolant System and Connected Piping	11-28-05	End of Interval Exam, STP-R8A	NRI
2	1	Excess Letdown between 8166 & 8167	11-28-05	End of Interval Exam, ISI X-101	NRI
3	1	Pressurizer Auxiliary spray	11-28-05	End of Interval Exam, ISI X-101	NRI
4	1	Alternate Charging	11-28-05	End of Interval Exam, ISI X-101	NRI
5	1	RHR & SI to Cold Legs	11-28-05	STP-R8A	NRI
6	1	Charging Injection Inside Cont.	11-28-05	End of Interval Exam, ISI P-SI-12	NRI
7	1	Safety Injection Inside Cont, From 8905A-D to 8949A-D	11-28-05	STP R8A	NRI
8	1	RHR Between 8702 & 8701	11-26-05	End of Interval Exam, ISI P-RHR-8	NRI

PG&amp;E

DIABLO CANYON POWER PLANT -  
UNIT 1

SECOND INTERVAL, THIRD PERIOD, SECOND REFUELING OUTAGE REPORT (1R13)

MAJOR ITEM: PRESSURE TESTS

ASME SECTION XI SYSTEMS - CLASS 1 &amp; 2

PAGE 2 of 4

TEST NO.	CLASS	DESCRIPTION	EXAM DATE	COMMENTS	RESULTS
1	2	Steam Generators and Connected Piping	11/29/05	End of Interval Exam	NRI
4	2	RCS Loops 1 & 4 Hot Leg Sample Lines	11/28/05	End of Interval Exam	NRI
5	2	Pressurizer Sample Lines	11/28/05	End of Interval Exam	NRI
6	2	XS Ltdn HX & piping from 8167 to HCV-123	11/28/05	End of Interval Exam	NRI
7	2	RCP Hi Press Seal Water out & XS Ltdn HX outlet piping	11/28/05	End of Interval Exam	NRI
9	2	Recip Chg Pump & Disch Piping to 8475	10/8/04	End of Interval Exam	NRI
10	2	Alt Charging Between 8483, 8147 & 8379A	11/28/05	End of Interval Exam	NRI
12	2	Charging Injection 8801A & B to 8820	11/28/05	End of Interval Exam	NRI
13	2	Charging Pumps & Suction Piping	11/17/05	End of Interval Exam	NRI
15	2	Boric Acid Pumps Disch Piping	9/7/05	End of Interval Exam	NRI

PG&amp;E

DIABLO CANYON POWER PLANT -  
UNIT 1

SECOND INTERVAL, THIRD PERIOD, SECOND REFUELING OUTAGE REPORT (1R13)

MAJOR ITEM: PRESSURE TESTS

ASME SECTION XI SYSTEMS - CLASS 1 &amp; 2

PAGE 3 of 4

TEST NO.	CLASS	DESCRIPTION	EXAM DATE	COMMENTS	RESULTS
15a	2	Boric Acid Pumps Disch Piping Between 8104 and 8445	9/28/05	End of Interval Exam	NRI
16	2	Boric Acid Tanks to Pump Disch Iso Valves	9/7/05	End of Interval Exam	NRI
19	2	RWST & Supply to RHR, Cont Spray, SI, Refueling Wtr Purification Pumps & Recirc Line to RHR HX	11/25/05	End of Interval Exam	NRI
23	2	RHR Pumps and Discharge Piping	11/25/05	End of Interval Exam	NRI
25	2	Spray Additive Tank and Unisolable piping	3/29/05	End of Interval Exam	NRI
34	2	PZR Relief Tank Nitrogen Supply (pen 52)	11/25/05	End of Interval Exam	NRI
36	2	Accumulator Tanks N2 Supply Header. (pen 51)	10/27/05	End of Interval Exam	NRI
37	2	Accumulators Sample Header	11/30/05	End of Interval Exam	NRI
39	2	Auxiliary Steam Containment Penetration	11/1/05	End of Interval Exam	NRI
40	2	Firewater Supply Before Containment (pen 79)	10/20/05	End of Interval Exam	NRI

PG&E

DIABLO CANYON POWER PLANT -  
UNIT 1

SECOND INTERVAL, THIRD PERIOD, SECOND REFUELING OUTAGE REPORT (1R13)

MAJOR ITEM: PRESSURE TESTS

ASME SECTION XI SYSTEMS - CLASS 1 & 2

PAGE 4 of 4

TEST NO.	CLASS	DESCRIPTION	EXAM DATE	COMMENTS	RESULTS
41	2	Refueling Canal Water Inlet (pen 46)	11/17/05	End of Interval Exam	NRI
42	2	Reactor Coolant Drain Tank N2 Sup. (pen 52D)	11/25/05	End of Interval Exam	NRI
43	2	Reactor Coolant Drain Pumps Disch Header. (pen 50)	11/25/05	End of Interval Exam	NRI

## **SECTION F**

### **Appendix- J Containment Penetration Pressure Test**

PG&amp;E

DIABLO CANYON POWER PLANT -  
UNIT 1

SECOND INTERVAL, THIRD PERIOD, SECOND REFUELING OUTAGE REPORT (1R13)

MAJOR ITEM: Containment Penetration  
Appendix J

ASME SECTION XI SYSTEMS - CLASS 1 &amp; 2

PAGE 1 of 2

PEN NO.	STP NO.	Results	EXAM DATE	PEN NO.	STP NO.	Results	EXAM DATE	PEN NO.	STP NO.	Results	EXAM DATE
19	V-619	Acceptable	10/27/05	43	V-641	Acceptable	11/1/05	51D	V-651D	Acceptable	11/08/05
20	V-620	Acceptable	10/27/05	44	V-641	Acceptable	11/1/05	52A	V-652A	Acceptable	11/10/05
21	V-620	Acceptable	11/16/05	45	V-645	Acceptable	11/4/05	52B	V-652B	Acceptable	11/3/05
22	V-623	Acceptable	11/19/05	46	V-646	Acceptable	10/25/05	52D	V-652D	Acceptable	11/21/05
23	V-623	Acceptable	10/28/05	47	V-646	Acceptable	10/25/05	54	V-654	Acceptable	11/22/05
30	V-630	Acceptable	11/18/05	49	V-649	Acceptable	11/15/05	56	V-656	Acceptable	11/16/05
31	V-631	Acceptable	11/25/05	50	V-650	Acceptable	11/11/05	57	V-657	Acceptable	11/15/05
35	V-635	Acceptable	4/16/04	51A	V-651A	Acceptable	11/14/05	59A	V-659A	Acceptable	5/12/04
41	V-641	Acceptable	11/01/05	51B	V-651B	Acceptable	3/31/04	59B	V-659B	Acceptable	11/19/05
42	V-641	Acceptable	11/01/05	51C	V-651C	Acceptable	5/5/04	59C	V-659C	Acceptable	5/2/02

PG&amp;E

DIABLO CANYON POWER PLANT -  
UNIT 1

SECOND INTERVAL, THIRD PERIOD, SECOND REFUELING OUTAGE REPORT (1R13)

MAJOR ITEM: Containment Penetration  
Pressure Test

ASME SECTION XI SYSTEMS - CLASS 1 &amp; 2

PAGE 2 of 2

PEN NO.	STP NO.	Results	EXAM DATE	PEN NO.	STP NO.	Results	EXAM DATE	PEN NO.	STP NO.	Results	EXAM DATE
61	V-661	Acceptable	11/25/05	52E	V-678	Acceptable	10/31/05				
62	V-662	Acceptable	11/25/05	52F	V-678	Acceptable	10/31/05				
63	V-663	Acceptable	11/24/05	78A	V-678	Acceptable	10/31/05				
65	V-665	Acceptable	7/23/05	78B	V-678	Acceptable	11/1/05				
68	V-668	Acceptable	11/25/05	79	V-679	Acceptable	10/28/05				
69	V-668	Acceptable	11/5/05	81	V-681	Acceptable	11/15/05				
70	V-670	Acceptable	10/31/05	82A	V-682A	Acceptable	10/31/05				
71	V-671	Acceptable	11/12/05	82B	V-682B	Acceptable	11/1/05				
76A	V-676A	Acceptable	5/1/02	82C	V-682B	Acceptable	11/1/05				
76B	V-676B	Acceptable	5/1/02	83B	B-683	Acceptable	11/20/05				

**SECTION G**  
**PRESERVICE INSPECTION ITEMS**

SECOND INTERVAL, THIRD PERIOD, SECOND REFUELING OUTAGE REPORT  
(1R13)

MAJOR ITEM: PSI

## ASME SECTION XI SYSTEMS – CLASS 1 &amp; 2 PRESERVICE INSPECTION ITEMS

PAGE 1 of 1

The required preservice inspections were performed on 6 components and 4 supports during the thirteenth refueling outage.

CATEGORY	Name of Component	System	Exam Type	Work Order No.	Other Ident. Line No
B-G-1					
	RCP 1-2 Case Studs	7	UT	C0196993	RCP 1-2
	RCP 1-2 Case Hydraulic Nuts	7	VT-1	C0196993	RCP 1-2
B-G-2					
	RCS-1-RV-8010A	7	VT-1	R0261469	729
	RCS-1-RV-8010B	7	VT-1	R0261468	728
	RCS-1-RV-8010C	7	VT-1	R0260099	727
B-L-2	RCP 1-2 Internals Cover Interior	7	VT-3	C0196993	RCP 1-2
F-A					
	1-38R	3	VT-3	C0195347	569
	10-13SL	7	VT-3	C0197234	16
	10-128SL	7	VT-3	C0194779	14
	288-158A	9	VT-3	C0197317	7077

**SECTION H**  
**AUGMENTED EXAMINATIONS**

PG&E

DIABLO CANYON POWER PLANT - UNIT 1

SECOND INTERVAL, THIRD PERIOD, SECOND REFUELING OUTAGE REPORT  
(1R13)  
CONTAINMENT EXAMS

MAJOR ITEM: AUGMENTED EXAMINATIONS

PAGE 1 of 1

CATEGORY ITEM	DESCRIPTION	COMPONENT / LINE	WELD OR COMPONENT NO.	EXAM TYPE	EXAM DATE	COMMENTS	RESULTS
Augmented							
	RC Pump 1-4 Flywheel	RC Pump 1-4 Flywheel	Flywheel Inner Half Radius	UT	11-7-05		NRI

**SECTION I**  
**REPAIRS AND REPLACEMENTS**

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

1. Owner Pacific Gas and Electric Company Date January 4, 2006  
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 2

2. Plant Diablo Canyon Power Plant Unit 1  
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 Work Order) 19 Edition Addenda, Code Cases N/A  
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements - 1989, No Addenda, Code Case N-416-1

6. Identification of components Repaired or Replaced, and Replacement Components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Repaired Replaced, or Replacement	Pressure Test	ASME Code Stamped (Yes or No)
FW-1-LCV-106	Control Components	12428-1-1	N/A	C0195347	569	N/A	Replaced (1)(2)	<input type="checkbox"/>	N
FW-1-LCV-106	Control Components	12428-1-1	N/A	C0195347	569	N/A	Replaced (3)	<input type="checkbox"/>	N
FW-1-LCV-106	Control Components	12428-1-1	N/A	C0201067	569	N/A	Repair (4)	<input type="checkbox"/>	N
FW-1-378	Velan Valve	0418	N/A	C0200616	570	N/A	Replaced (1)	<input type="checkbox"/>	N

7. Description of Work (1) Replaced Bonnet Bolting (2) Replaced Bonnet (3) Replaced Valve Internals (4) Machined Bonnet

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ Other ☐  
 Pressure \_\_\_\_\_ PSIG Test Temp. \_\_\_\_\_ °F ☐ Pressure Test Conducted IAW Code Case N-416-1

9. Remarks

**CERTIFICATE OF COMPLIANCE**

We certify that the statements made in this report are correct and this Repair/Replacement conforms to Section XI of the ASME Code. Signed Subin Vestcott Engineering Manager 2/07/06  
 (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, employed by HSB-CT of Hartford, CT have inspected the Replacement/Repair described in this Report on 2-14, 2006 and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this 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 2-14-2006 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 4 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.

1. Owner	<u>Pacific Gas and Electric Company</u> <u>77 Beale Street, San Francisco, CA 94106</u>	Date	<u>January 4, 2006</u>
2. Plant	<u>Diablo Canyon Power Plant</u> <u>P.O. Box 56, Avila Beach, CA 93424</u>	Sheet	<u>2</u> of <u>2</u>
3. Work Performed by	<u>Owner</u> <u>See Above</u>	Unit	<u>1</u>
4. Identification of System	<u>Feedwater System (03)</u>	Repair Org.	<u>P.O. No., Job No., etc.</u>
5. (a) Applicable Construction Code	<u>See Work Order</u> <u>19</u> Edition	Addenda, Code Cases	<u>N/A</u>
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements -	<u>1989, No</u>	Addenda, Code Case	<u>N-416-1</u>
6. Identification of components Repaired or Replaced, and Replacement Components:			

[illegible]

7. Remarks (1) Replaced Bonnet Bolting

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

1. Owner Pacific Gas and Electric Company Date January 4, 2006  
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 1

2. Plant Diablo Canyon Power Plant Unit 1  
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 Feedwater System (03)

5. (a) Applicable Construction Code (See Work Order) 19      Edition      Addenda, Code Cases N/A  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements - 1989, No Addenda, Code Case N-416-1

6. Identification of components Repaired or Replaced, and Replacement Components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Repaired Replaced, or Replacement	Pressure Test	ASME Code Stamped (Yes or No)
1-38R	PG&E	N/A	N/A	C0195347	569	N/A	Replaced (5)	<input type="checkbox"/>	N
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	

7. Description of Work (5) Replaced Bolting

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ Other       
Pressure      PSIG Test Temp.      °F ☐ Pressure Test Conducted IAW Code Case N-416-1

9. Remarks

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and this Replacement conforms to Section XI of the ASME Code. Signed [Signature] Engineering Manager 2/07/06  
(Owner or Owner's Designee) Shawn Westcott (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, employed by HSB-CT of Hartford, CT have inspected the Replacement described in this Report on 2-14, 20 06 and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this 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 2-14-2006 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 4 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-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT  
As Required by the Provisions of ASME Code Section XI

1. Owner Pacific Gas and Electric Company Date January 4, 2006  
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 1
2. Plant Diablo Canyon Power Plant Unit 1  
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 Turbine Steam Supply System (04)
5. (a) Applicable Construction Code (See Work Order) 19 \_\_\_\_ Edition Addenda, Code Cases N/A  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements - 1989, No Addenda, Code Case N-416-1
6. Identification of components Repaired or Replaced, and Replacement Components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Repaired Replaced, or Replacement	Pressure Test	ASME Code Stamped (Yes or No)
MS-1-PCV-20	Copes-Vulcan	6910.95009	N/A	C0185580	227	N/A	Replaced (1)	<input type="checkbox"/>	N
MS-1-FCV-25	Fisher Controls Co.	5727538	N/A	C0195089	3915	N/A	Replaced (2)	<input type="checkbox"/>	N
MS-1-FCV-24	Fisher Controls Co.	NF	N/A	C0196556	3916	N/A	Replaced (3)	<input checked="" type="checkbox"/>	N
MS-1-5167	Anchor Darling	EA998-1-2	N/A	R0257735	594	N/A	Replaced (1)	<input type="checkbox"/>	N

7. Description of Work (1) Replaced Valve Internals (2) Replaced Bonnet Bolting (3) Replaced Valve By Welding
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐ Other \_\_\_\_\_  
Pressure 1010 PSIG Test Temp. 547 °F ☒ Pressure Test Conducted IAW Code Case N-416-1
9. Remarks

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and this Replacement conforms to Section XI of the ASME Code. Signed [Signature] Engineering Manager 2/07/06  
(Owner or Owner's Designee) Susan Westcott (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, employed by HSB-CT of Hartford, CT have inspected the Replacement described in this Report on 2-14, 20 06 and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this 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 2-14-2006 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 4 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-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT  
As Required by the Provisions of ASME Code Section XI

1. Owner Pacific Gas and Electric Company Date January 6, 2006  
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 1
2. Plant Diablo Canyon Power Plant Unit 1  
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 Turbine Steam Supply System (04)
5. (a) Applicable Construction Code (See Work Order) 19      Edition      Addenda, Code Cases      N/A  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements - 1989, No Addenda, Code Case N-416-1
6. Identification of components Repaired or Replaced, and Replacement Components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Repaired Replaced, or Replacement	Pressure Test	ASME Code Stamped (Yes or No)
1029-9R	PG&E	1029-9R	N/A	C0200720-01	225	N/A	Replaced (1)	<input type="checkbox"/>	N
1031-16R	PG&E	1031-16R	N/A	C0200720-02	3916	N/A	Replaced (2)	<input type="checkbox"/>	N
288-159R	PG&E	288-159R	N/A	C0200720-03	225	N/A	Replaced (3)	<input type="checkbox"/>	N
								<input type="checkbox"/>	
								<input type="checkbox"/>	

7. Description of Work (1) Deleted Support (2) Installed Shims (3) Installed New Support
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ Other       
Pressure      PSIG Test Temp.      °F ☐ Pressure Test Conducted IAW Code Case N-416-1
9. Remarks

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and this Replacement conforms to Section XI of the ASME Code. Signed Susan Vestcott Engineering Manager 2/07/06  
(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, employed by HSB-CT of Hartford, CT have inspected the Replacement described in this Report on 2-14, 20 06 and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this 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 2-14-2006 Commissions CA 1828 - NB 9990 A.N.I.C.  
(Title) (Date) (State or Province, National Board)

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

1. Owner Pacific Gas and Electric Company Date January 4, 2006  
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 1
2. Plant Diablo Canyon Power Plant Unit 1  
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 Reactor Coolant System (07)
5. (a) Applicable Construction Code (See Work Order) 19      Edition      Addenda, Code Cases      N/A  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements - 1989, No Addenda, Code Case N-416-1
6. Identification of components Repaired or Replaced, and Replacement Components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Repaired Replaced, or Replacement	Pressure Test	ASME Code Stamped (Yes or No)
RCS-1-RV-8010A	Crosby Valve	U2C	N/A	R0261469	729	N/A	Replaced (1)	<input type="checkbox"/>	N
RCS-1-RV-8010C	Crosby Valve	U1C	N/A	R0260099	727	N/A	Replaced (1)	<input type="checkbox"/>	N
RCS-1-RV-8010B	Crosby Valve	U1B	N/A	R0261468	728	N/A	Replaced (1)	<input type="checkbox"/>	N
Reactor Vessel 1-1	Combustion Eng	CE66104	20760	R0261478	Rx. Vessel 1-1	1970	Replaced (2)	<input type="checkbox"/>	Y
								<input type="checkbox"/>	

7. Description of Work (1) Replaced Valve (2) Replaced CETNA Seal Carrier Assemblies

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ Other       
Pressure      PSIG Test Temp.      °F ☐ Pressure Test Conducted IAW Code Case N-416-1

9. Remarks:

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and this Replacement conforms to Section XI of the ASME Code. Signed Supat Westcott Engineering Manager 2/07/06  
(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, employed by HSB-CT of Hartford, CT have inspected the Replacement described in this Report on 2-14, 20 06 and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this 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 2-14-2006 Commissions CA 1828 - NB 9990 A.N.I.C.  
(Title) (Date) (State or Province, National Board)

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

1. Owner Pacific Gas and Electric Company Date January 4, 2006  
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 2
2. Plant Diablo Canyon Power Plant Unit 1  
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 Chemical and Volume Control System (08)
5. (a) Applicable Construction Code (See Work Order) 19 \_\_\_ Edition Addenda, Code Cases N/A  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements - 1989, No Addenda, Code Case N-416-1
6. Identification of components Repaired or Replaced, and Replacement Components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Repaired Replaced, or Replacement	Pressure Test	ASME Code Stamped (Yes or No)
ELDHE 1-1	Atlas Industrial	853	704	C0184327	ELDHE1	1967	Replaced (1)	<input type="checkbox"/>	Yes
BA Xfer PP 1-1	Westinghouse	SYZ001105A1-RO	N/A	C0186984	BATP1	N/A	Replaced (2)	<input type="checkbox"/>	No
BA Xfer PP 1-2	Westinghouse	4SYZ-00167-A2-NR	N/A	C0186999	BATP2	N/A	Replaced (2)	<input type="checkbox"/>	No
Line-45	PG&E	NF	N/A	C0190575	Line-45	N/A	Replaced (3)	<input checked="" type="checkbox"/>	No

7. Description of Work (1) Replaced Flange Bolting (2) Installed Motor Jacking Plates (3) Rework CCP 1-1 Discharge Spool

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐ Other \_\_\_\_\_  
Pressure 2570 PSIG Test Temp. Amb °F ☒ Pressure Test Conducted IAW Code Case N-416-1

9. Remarks \_\_\_\_\_

**CERTIFICATE OF COMPLIANCE**

We certify that the statements made in this report are correct and this Replacement conforms to Section XI of the ASME Code. Signed \_\_\_\_\_ Engineering Manager 2/07/06  
(Owner or Owner's Designee) Susan Westcott (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, employed by HSB-CT of Hartford, CT have inspected the Replacement described in this Report on 2-14, 20 06 and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this 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 2-14-2006 Commissions CA 1828 - NB 9990 A.N.I.C  
(Title) (Date) (State or Province, National Board)

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1. Owner	<u>Pacific Gas and Electric Company</u> <u>77 Beale Street, San Francisco, CA 94106</u>	Date	<u>January 4, 2006</u>
2. Plant	<u>Diablo Canyon Power Plant</u> <u>P.O. Box 56, Avila Beach, CA 93424</u>	Sheet	<u>2</u> of <u>2</u>
3. Work Performed by	<u>Owner</u> <u>See Above</u>	Unit	<u>1</u>
4. Identification of System	<u>Chemical and Volume Control System (08)</u>		

[illegible]

7. Remarks (4) Replaced Piping (5) Replaced Mechanical Seal (6) Replaced Valve

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

1. Owner Pacific Gas and Electric Company Date January 4, 2006  
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 1
2. Plant Diablo Canyon Power Plant Unit 1  
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 Chemical and Volume Control System (08)
5. (a) Applicable Construction Code (See Work Order) 19      Edition      Addenda, Code Cases N/A  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements - 1989, No Addenda, Code Case N-416-1
6. Identification of components Repaired or Replaced, and Replacement Components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Repaired Replaced, or Replacement	Pressure Test	ASME Code Stamped (Yes or No)
73-73	PG&E	N/A	N/A	C0190958	Line-1466	N/A	Replaced (1)	<input type="checkbox"/>	No
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	

7. Description of Work (1) Deleted Pipe Support
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ Other       
Pressure      PSIG Test Temp.      °F ☐ Pressure Test Conducted IAW Code Case N-416-1
9. Remarks

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and this Replacement conforms to Section XI of the ASME Code. Signed Susan Westcott Engineering Manager 2/07/06  
(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, employed by HSB-CT of Hartford, CT have inspected the Replacement described in this Report on 2-14, 20 06 and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this 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 2-14-2006 Commissions CA 1828 - NB 9990 A.N.I.C.  
(Title) (Date) (State or Province, National Board)

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

1. Owner Pacific Gas and Electric Company Date January 4, 2006  
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 1
2. Plant Diablo Canyon Power Plant Unit 1  
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 Safety Injection System (09)
5. (a) Applicable Construction Code (See Work Order) 19      Edition      Addenda, Code Cases N/A  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements - 1989, No Addenda, Code Case N-416-1
6. Identification of components Repaired or Replaced, and Replacement Components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Repaired Replaced, or Replacement	Pressure Test	ASME Code Stamped (Yes or No)
SI-1-8820	Velan Valve	NF	N/A	C0189419	Line-1016	N/A	Replaced (1)	<input type="checkbox"/>	No
SI-1-8954B	Anchor Darling	NF	N/A	C0191846	Line-1295	N/A	Replaced (2)	<input type="checkbox"/>	No
SI-1-8982B	Anchor Darling	NF	N/A	C0195778	Line-513	N/A	Replaced (3)	<input type="checkbox"/>	No
SI-1-8956C	Anchor Darling	NF	N/A	C0198009	Line-255	N/A	Replaced (4)	<input type="checkbox"/>	No

7. Description of Work (1) Replaced Internals Bolting (2) Replaced Plug (3) Replace Bonnet Bolting (4) Replaced Internals

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐ Other       
Pressure      PSIG Test Temp.      °F ☐ Pressure Test Conducted IAW Code Case N-416-1

9. Remarks

**CERTIFICATE OF COMPLIANCE**

We certify that the statements made in this report are correct and this Replacement conforms to Section XI of the ASME Code. Signed Susan Westcott Engineering Manager 2/07/06  
(Owner or Owner's Designee) (Title) (Date)

**CERTIFICATE OF INSPECTION**

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Kenny D. Kim Inspector 2-14-2006 Commissions CA 1828 - NB 9990 A.N.I.C.  
(Title) (Date) (State or Province, National Board)

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

1. Owner Pacific Gas and Electric Company Date January 4, 2006  
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 1
2. Plant Diablo Canyon Power Plant Unit 1  
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 Residual Heat Removal System (10)
5. (a) Applicable Construction Code (See Work Order) 19      Edition      Addenda, Code Cases N/A  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements - 1989, No Addenda, Code Case N-416-1
6. Identification of components Repaired or Replaced, and Replacement Components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Repaired Replaced, or Replacement	Pressure Test	ASME Code Stamped (Yes or No)
RHR PP 1-1	Ingersoll-Rand	037050	N/A	C0198346	RHRP1	N/A	Replaced (1)	<input type="checkbox"/>	No
RHR-1-RV-8707	Crosby Valve	RV-2-8707-PEG	N/A	C0200757	Line-1167	N/A	Replaced (2)	<input type="checkbox"/>	No
								<input type="checkbox"/>	
								<input type="checkbox"/>	

7. Description of Work (1) Replaced Casing Bolting (2) Replaced Valve
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ Other       
Pressure      PSIG Test Temp.      °F ☐ Pressure Test Conducted IAW Code Case N-416-1
9. Remarks

**CERTIFICATE OF COMPLIANCE**

We certify that the statements made in this report are correct and this Replacement conforms to Section XI of the ASME Code. Signed Susan Westcott Engineering Manager 2/10/06  
(Owner or Owner's Designee) (Title) (Date)

**CERTIFICATE OF INSPECTION**

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Kenny D. Kim Inspector 2-14-2006 Commissions CA 1828 - NB 9990 A.N.I.C.  
(Title) (Date) (State or Province, National Board)

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

1. Owner Pacific Gas and Electric Company Date January 4, 2006  
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 1

2. Plant Diablo Canyon Power Plant Unit 1  
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 Containment Spray System (12)

5. (a) Applicable Construction Code (See Work Order) 19 Edition Addenda, Code Cases N/A  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements - 1989, No Addenda, Code Case N-416-1

6. Identification of components Repaired or Replaced, and Replacement Components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Repaired Replaced, or Replacement	Pressure Test	ASME Code Stamped (Yes or No)
CS-1-RV-930	ACF IND	1011	N/A	R0231766	Spray Add TK 1-1	N/A	Replaced (1)	<input type="checkbox"/>	No
CS-1-RV-931	ACV IND	758	N/A	R0231769	Spray Add TK 1-1	N/A	Replaced (1)	<input type="checkbox"/>	No
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	

7. Description of Work (1) Replaced Valve with Spare

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ Other \_\_\_\_\_  
Pressure \_\_\_\_\_ PSIG Test Temp. \_\_\_\_\_ °F ☐ Pressure Test Conducted IAW Code Case N-416-1

9. Remarks

**CERTIFICATE OF COMPLIANCE**

We certify that the statements made in this report are correct and this Replacement conforms to Section XI of the ASME Code. Signed [Signature] Engineering Manager 2/10/06  
(Owner or Owner's Designee) Susan Westcott (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, employed by HSB-CT of Hartford, CT have inspected the Replacement described in this Report on 2-14, 20 06 and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this 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 2-14-2006 Commissions CA 1828 - NB 9990 A.N.I.C.  
Kenny D. Kim (Title) (Date) (State or Province, National Board)

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

1. Owner Pacific Gas and Electric Company Date January 4, 2006  
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 1
2. Plant Diablo Canyon Power Plant Unit 1  
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 Component Cooling Water System (14)
5. (a) Applicable Construction Code (See Work Order) 19      Edition      Addenda, Code Cases N/A  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements - 1989, No Addenda, Code Case N-416-1
6. Identification of components Repaired or Replaced, and Replacement Components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Repaired Replaced, or Replacement	Pressure Test	ASME Code Stamped (Yes or No)
CCW-1-476	Fisher Controls	BF155806	N/A	C0194262	Line-321	N/A	Replaced (1)	<input type="checkbox"/>	No
CCW-1-695	C&S Valve	59927	N/A	C0200626	Line-144	N/A	Replaced (1)	<input type="checkbox"/>	No
CCW-1-RV-52	Loneragan, J.E.	011459-1-4-1	N/A	R0215276	Line-3292	N/A	Replaced (1)	<input type="checkbox"/>	Unk
								<input type="checkbox"/>	
								<input type="checkbox"/>	

7. Description of Work (1) Replaced Valve
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ Other       
Pressure      PSIG Test Temp.      °F ☐ Pressure Test Conducted IAW Code Case N-416-1
9. Remarks

**CERTIFICATE OF COMPLIANCE**

We certify that the statements made in this report are correct and this Replacement conforms to Section XI of the ASME Code. Signed Susan Westcott Engineering Manager 2/07/06  
(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, employed by HSB-CT of Hartford, CT have inspected the Replacement described in this Report on 2-14, 20 06 and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this 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 2-14-2006 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 4 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-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT**  
As Required by the Provisions of ASME Code Section XI

1. Owner Pacific Gas and Electric Company Date January 4, 2006  
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 1
2. Plant Diablo Canyon Power Plant Unit 1  
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 Work Order) 19      Edition      Addenda, Code Cases N/A  
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements - 1989, No Addenda, Code Case N-416-1
6. Identification of components Repaired or Replaced, and Replacement Components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Repaired Replaced, or Replacement	Pressure Test	ASME Code Stamped (Yes or No)
VAC-1-200	Mission Drilling Prod	15SMF-729	N/A	C0200592	Line-4389	N/A	Replaced (1)	<input type="checkbox"/>	No
VAC-1-21	Mission Drilling Prod	64213	N/A	C0200679	Line-3838	N/A	Replaced (2)	<input type="checkbox"/>	No
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	

7. Description of Work (1) Replaced Valve (2) Replaced Internals
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ Other       
Pressure      PSIG Test Temp.      °F ☐ Pressure Test Conducted IAW Code Case N-416-1
9. Remarks

**CERTIFICATE OF COMPLIANCE**

We certify that the statements made in this report are correct and this Replacement conforms to Section XI of the ASME Code. Signed Susan Westcott Engineering Manager 2/07/06  
(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, employed by HSB-CT of Hartford, CT have inspected the Replacement described in this Report on 2-14, 20 06 and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this 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 2-14-2006, 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 4 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-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT**  
As Required by the Provisions of ASME Code Section XI

1. Owner Pacific Gas and Electric Company Date January 4, 2006  
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 1

2. Plant Diablo Canyon Power Plant Unit 1  
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 Work Order) 19 Edition Addenda, Code Cases N/A  
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements - 1989, No Addenda, Code Case N-416-1

6. Identification of components Repaired or Replaced, and Replacement Components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Repaired Replaced, or Replacement	Pressure Test	ASME Code Stamped (Yes or No)
Seal Table	Westinghouse	N/A	N/A	C0200677	RVST	N/A	Repair (1)	<input checked="" type="checkbox"/>	No
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	

7. Description of Work (1) Shorten Incore Flux Thimbles (F-14, H-13, H-17)

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐ Other ☐  
 Pressure 2255 PSIG Test Temp. 547 °F ☐ Pressure Test Conducted IAW Code Case N-416-1

9. Remarks Class-1 opening

**CERTIFICATE OF COMPLIANCE**

We certify that the statements made in this report are correct and this Repair conforms to Section XI of the ASME Code. Signed Susan Westcott Engineering Manager 2/07/06  
 (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, employed by HSB-CT of Hartford, CT have inspected the Repair described in this Report on 2-14, 20 06 and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this 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 2-14-2006 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 4 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-2 OWNER'S REPORT OF REPAIR OR REPLACEMENT**  
As Required by the Provisions of ASME Code Section XI

1. Owner Pacific Gas and Electric Company Date January 4, 2006  
77 Beale Street, San Francisco, CA 94106 Sheet 1 of 1
2. Plant Diablo Canyon Power Plant Unit 0  
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 Warehouse Stock (85)
5. (a) Applicable Construction Code (See Work Order) 19      Edition      Addenda, Code Cases N/A  
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements - 1989, No Addenda, Code Case N-416-1
6. Identification of components Repaired or Replaced, and Replacement Components.

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Work Order No.	Other Identification Line No	Year Built	Repaired Replaced, or Replacement	Pressure Test	ASME Code Stamped (Yes or No)
95-1995	Copes-Vulcan	N/A	N/A	C0194597	D-100-160-3	N/A	Repaired (1)	<input type="checkbox"/>	No
95-6458	Crane	15SMF-729	N/A	C0197436	N/A	N/A	Replaced (2)	<input type="checkbox"/>	No
93-7965	PG&E	BM07858	N/A	C0199819	N/A	N/A	Replaced (3)	<input type="checkbox"/>	No
								<input type="checkbox"/>	
								<input type="checkbox"/>	

7. Description of Work (1) Refurbished Trim Set (2) Replaced Hinge Pin (3) Replaced Disc
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ Other       
 Pressure      PSIG Test Temp.      °F ☐ Pressure Test Conducted IAW Code Case N-416-1
9. Remarks

**CERTIFICATE OF COMPLIANCE**

We certify that the statements made in this report are correct and this Repair/Replacement conforms to Section XI of the ASME Code. Signed Susan Westcott Engineering Manager 2/07/06  
 (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, employed by HSB-CT of Hartford, CT have inspected the Replacement/Repair described in this Report on 2-14, 20 06 and state that to the best of my knowledge and belief, this repair or replacement has been constructed in accordance with Section XI of the ASME Code. By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair or replacement described in this 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 2-14-2006 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 4 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.

## **SECTION J**

### **Manufacturers Data Reports For Nuclear/Pressure Vessels**

CONTRACT  
23066

FORM N-1A MANUFACTURERS DATA REPORT FOR NUCLEAR VESSELS

Alternate Form for Single Chamber Completely Shop-Fabricated Vessels Only

As required by the Provisions of the ASME Code Rules and the National Board

SHEET  
1 of 2

1. Manufactured by Combustion Engineering, Inc., 911 West Main Street, Chattanooga, Tennessee  
(Name and address of Manufacturer)  
2. Manufactured for Westinghouse Electric Corporation, P. O. Box 355, Pittsburgh, Pennsylvania  
(Name and address of Purchaser)  
3. Type Vert. Vessel No. (66204) (Mfrs. Serial) (State & State No.) Natl. Bd. No. 20760 Year Built 1970  
(Horiz. or Vert.)  
4. Shell: Material A-508-64 (Flg.) T.S. 80,000 Non. 10- Corr. 13 11-1/2  
(Kind & Spec. No.) (Min. of range specified) Thk. 3/4 In. Allow. In. Diam 14 Ft. Length 42 Ft. 3-11/16  
5. Seams: Long 9 H.T. Yes X.R. Yes Efficiency 70 %  
(If Class B)  
Girth 4 H.T. Yes X.R. Yes No. of Courses 3  
6. Heads: (a) Material A-508-64 (Flg.) T.S. 80,000 (b) Material A-533 Gr. B Cl. 1 T.S. 80,000  
Location (Top, bottom, ends) Thickness Crown Radius Knuckle Radius Elliptical Ratio Conical Apex Angle Hemispherical Radius Flat Diameter Side to Pressure  
(Convex or Concave)  
(a) Top 7 83-23/32 83-23/32 86  
(b) Top 7 86  
If removable, bolts used Alloy Steel SA-540 Gr. B-2 Over 145,000 56  
(Material, Spec. No. T.S., Size, Number)  
7. Constructed for Design Operating press. 2500 psi. at max. temp. 650 °F. at temp. of 40 °F. Charpy impact 30 ft-lb  
Hydrostatic Test Press. 3125 psi.  
8. Safety or Relief Valve Outlets: Number 1 Size 1/2 Location Top  
9. Nozzles:  
Purpose (Inlet, Outlet, Drain) Number Diam. or Size Type Material Thickness Reinforcement Material How Attached  
Body 4 27-15/16 I.D. Forging A-508-64 Cl. 2-5/16 Integral Welded  
Extension 4 27-15/16 I.D. Forging SA-182 2 2-5/16 Integral Welded  
10. Inspection Manholes, No. 1 Size 1/2 Location Top  
Openings: Handholes, No. 1 Size 1/2 Location Top  
Threaded, No. 1 Size 1/2 Location Top  
11. Supports: Skirt No. 4 Lugs 4 Legs 4 Other None Attached Welded Here & How  
(Yes or No) (Number) (Number) (Describe)  
12. Remarks: Pressurized Water Reactor Vessel.  
Control Rod Housings included.

PACIFIC GAS AND ELECTRIC CO.  
APPROVED FOR CONSTRUCTION  
RECORDED  
FEB 15 1971  
DEPARTMENT OF ENGINEERING

For continuation of Item 4, 6 & 9, See supplement (Brief description of purpose of the vessel - State & State No.)

<sup>1</sup> If Postweld Heat-Treated.

<sup>2</sup> List other internal or external pressure with coincident temperature when applicable.

We certify that the statements made in this report are correct and that all details of material design, construction, and workmanship of the vessel conform to the ASME Code for Nuclear Vessels.

Date November 20 19 70 Signed Combustion Engineering, Inc. By H. N. Dinwiddie

Certificate of Authorization Expires April 10, 1972 (Manufacturer)

H. N. Dinwiddie

CERTIFICATION OF DESIGN

Design information on file at Combustion Engineering, Inc., Chattanooga, Tennessee  
Stress analysis report on file at Combustion Engineering, Inc., Chattanooga, Tennessee  
Design specifications certified by L. Porse Prof. Eng. Yes State Calif. Reg. No. 7352  
Stress analysis report certified by Frank P. Hill, Jr. Prof. Eng. Yes State Tenn. Reg. No. 7257

CERTIFICATE OF SHOP INSPECTION

VESSEL MADE BY Combustion Engineering, Inc. at Chattanooga, Tenn.

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State and employed by Hartford Steam Boiler Ins. & Ins. Co., Hartford, Connecticut

have inspected the pressure vessel described in this manufacturer's data report on May 15 19 70, and state that to the best of my knowledge and belief, the manufacturer has constructed this pressure vessel in accordance with the ASME Code for Nuclear Vessels.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this manufacturer's 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 November 20 19 70

National Board No. 2928

M. R. McLellan

Inspectors Signature

Commissions

National Board or State and No.

FORM N-1A SUPPLEMENTAL DATA REPORT FOR NUCLEAR VESSELS  
Alternate Form for Single Chamber Completely Shop-Fabricated Vessels Only  
As required by the Provisions of the ASME Code Rules and the National Board

1. Manufactured by Combustion Engineering, Inc., 911 West Main St., Chattanooga, Tennessee  
(Name and address of Manufacturer)

2. Manufactured for Westinghouse Electric Corp., P. O. Box 355, Pittsburgh, Pennsylvania  
(Name and address of Purchaser)

3. Type Vert. Vessel No. (66204) (Mfrs. Serial) (State & State No.) Natl. Bd. No. 20760 Year Built 1970

4. Shell: Material Gr. B Cl. 1 T.S. 80,000 Nom. 8 Corr. 5  
(Kind & Spec. No.) (Min. of range specified) Thk. 5/8 In. Allow. In. Diam. 14 Ft. 7/16 Length 42 Ft. 11/16 In.

5. Seams: Long H.T. X.R. Efficiency        %  
(If Class B)

Girth H.T. X.R. No. of Courses       

6. Heads: (a) Material A-533 Gr. B Cl. 1 T.S. 80,000 (b) Material        T.S.       

Location (Top, bottom, ends)	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a) Bottom	5-5/16	88-3/8				88-3/8		Concave
(b) <u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>	<u>      </u>

If removable, bolts used        (Material, Spec. No. T.S., Size, Number) Other fastening        (Describe or Attach Sketch)

7. Constructed for operating press 2 psi. at max. temp.        °F. at temp. of        °F. Charpy impact        ft-lb Hydrostatic        Test  
Pneumatic or } Press.        psi.  
Combination }

8. Safety or Relief Valve Outlets: Number        Size        Location       

9. Nozzles:  
Purpose (but Outlet, ~~etc.~~) Number Diam. or Size Type Material Thickness Reinforcement Material How Attached

Body	4	29-7/16"	I.D. Forging	A-508-64 Cl. 1	2-11/32	Integral	Welded
Extension	4	29-7/16"	I.D. Forging	SA-182	2	Integral	Welded

10. Inspection Manholes, No.        Size        Location         
Openings: Handholes, No.        Size        Location         
Threaded, No.        Size        Location       

11. Supports: Skirt        Lugs        (Number) Legs        (Number) Other        Attached        (Where & How)

12. Remarks:       

(Brief description of purpose of the vessel - State Contents.)

<sup>1</sup> If Postweld Heat-Treated.  
<sup>2</sup> List other internal or external pressure with coincident temperature when applicable.

We certify that the statements made in this report are correct and that all details of material design, construction, and workmanship of this vessel conform to the ASME Code for Nuclear Vessels.

Date        19        Signed        (Manufacturer) By       

Certificate of Authorization Expires       

CERTIFICATION OF DESIGN

Design information on file at         
Stress analysis report on file at         
Design specifications certified by        Prof. Eng.        State        Reg. No.         
Stress analysis report certified by        Prof. Eng.        State        Reg. No.       

CERTIFICATE OF SHOP INSPECTION

VESSEL MADE BY        at         
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of        and employed by        of         
have inspected the pressure vessel described in this manufacturer's data report on        19       , and state that to the best of my knowledge and belief, the manufacturer has constructed this pressure vessel in accordance with the ASME Code for Nuclear Vessels.  
By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this manufacturer's 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        19         
       Inspectors Signature        Commissions        National Board or State and No.

**FORM U-1 MANUFACTURERS' DATA REPORT FOR PRESSURE VESSELS**  
As required by the Provisions of the ASME Code Rules, Section VIII, Division 1

1. Manufactured by Atlas Industrial Mfg. Company, 81 Somerset Place, Clifton, New Jersey  
(Name and address of Manufacturer)

Manufactured for Westinghouse Electric Corp., Atomic Power Division, Pitts., Pa.  
 (Name and address of Purchaser)

Type Vert. Kind Heat Exch. Vessel No. ( 853 ) (            ) Natl. Bd. No. 704 Yr. Built 1969  
(Horiz. or Vert.) (Tank, Jacketed, Heat Exch.) (Mfr. Serial) (State & State No.)

Items 4-9 incl. to be completed for ~~the~~ shells of heat exchangers.

4. SHELL: Material C.S., SA-53-B T.S. 60,000 Nominal Thickness .322 in. Corrosion Allowance 1/8 in. Diam. 0 Ft. 8 5/8 In. Length 9 Ft. 2 1/2 In.  
(Kind and Spec. No.) (Fig. or F.B. & Spec. Mtn. T.S.)

5. SEAMS: Long Seamless H.T. No R.T. No Sectioned No Efficiency 80 %  
(Welded, Dbl., Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)

If riveted describe beams fully on reverse side of form.

6. HEADS (a) Material Girth Dbt Butt H.T. No. R.T. No. Sectioned No. No. of Courses 1 form.  
C.S., SA-234 T.S. 60,000 (b) Material  T.S.

G. HEADS (a) Material			(b) Material					I.S.	
Location (Top, bottom, ends)	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)	
(a) Top	.322	Weld	Cap	2:1				Concave	

(b) \_\_\_\_\_  
If removable, bolts used \_\_\_\_\_ Other fastening Welded to Shell  
(Material, Spec. No., T.S., Size, Number) (Describe or Attach Sketch)

7. STAYBOLTS:                      If hollow                      Attachment                      Pitch                      X                      Diam.                       
                     (Material)                      (Size of Hole)                      (Threaded, Welded)                      (Horiz.)                      (Vert.)                      (Nominal)

8. JACKET CLOSURE: \_\_\_\_\_  
(Describe an ogee & weld, bar, etc. If bar, give dimensions, If bolted, describe or sketch)

9. Constructed for max. allowable working press<sup>ure</sup> 150 psi at max. temp. 250 °F. Min. temp. (when less than -20°) \_\_\_\_\_ °F. Hydrostatic Test Press 225 psi.

Items 10 and 11 to be completed for tube sections.

10. TUNE SHEETS: Stationary. Material SS-316 SA-240 Diam. 7 1/4 In. Thickness 4 In. Attachment Bolted  
(Kind & Spec. No.) (Subject to Pressure) (Welded, Bolted)

Floting. Material \_\_\_\_\_ Diam. \_\_\_\_\_ In. Thickness \_\_\_\_\_ In. Attachment \_\_\_\_\_  
 SA 212 (Kind & Spec. No.) \_\_\_\_\_

1. TUBES: Material SS-304 O.D. 5/8 In. Thickness 16 Gage Number 22 Type U  
(Kind & Spec. No.) (Straight or U)

Items 12-15 incl. to be completed for ~~the~~ channels of heat exchangers.

12. SHELL Material SS-316, SA-240 T.S. 75,000 Nominal Thickness 3/4 In. Corrosion Allowance 0 In. Diam. 0 Ft. 9 1/2 In. Length 0 Ft. 5 3/4 In.  
(Kind and Spec. No.) (Fig. or F.B. & Spec. Min. T.S.)

13. SEAMS: Long Dbl Butt H.T. No R.T. Complete Sectioned No Efficiency 100 %  
(Welded, Dbl., Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)

If riveted describe seams fully on reverse side of form.

Girth Dbl Butt H.T. No R.T. Complete Sectioned No No. of courses 1

14. HEADS (a) Material SS-316 T.S. 75,000 (b) Material \_\_\_\_\_ T.S. \_\_\_\_\_ (c) Material \_\_\_\_\_ T.S. \_\_\_\_\_

	Location	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a)	Bottom	3/4			2:1				Concave

(b) Channel \_\_\_\_\_  
(c) Floating \_\_\_\_\_

If removable, bolts used (a) A.S.; SA-193-B7; 125,000; 1 5/8"; 12(b)  
(Material, Spec. No., T.S., Size, Number)

(c) \_\_\_\_\_ Other fastening \_\_\_\_\_  
(Describe or Attach Sketch)

15. Constructed for max. allowable working press: 2485 psi at max. temp. 650 °F. Min. temp. (when less than -20°) \_\_\_\_\_ °F. Test Press 3730 psi.

Items below to be completed for all vessels where applicable.

16. SAFETY VALVE OUTLETS: Number \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_

## 17. NOZZLES

Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
Inlet-Outlet	2	4"	150#WN	C.S.	.237"		Welded
Inlet-Outlet	2	2"	Socket Weld	Cplg S.S.	.343"		Welded
Drains	3	3/4"	Socket Weld	Cplg S.S.	3000#		Welded
Vent-Drain	2	3/4"	Half Cplg.	F.S.	3000#		Welded

NO 443200 40 E DC 22

**FORM U-1 (back)**

12. INSPECTION Manholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
 OPENINGS: Handholes, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
 Threaded, No. \_\_\_\_\_ Size \_\_\_\_\_ Location \_\_\_\_\_  
 19. SUPPORTS: Skirt No (Yes or No) Lugs 2 (Number) Legs \_\_\_\_\_ (Number) Other \_\_\_\_\_ (Describe) Attached Bonnet Weld (where & how)

20. REMARKS: #8-114, 69.3 sq.ft. Excess Letdown Heat Exchanger  
Tube Side Constructed in accordance with Section III Class "C", 1965 Edition. Shell  
Side Constructed in accordance with Section VIII, 1965 Edition.  
Westinghouse Elec. Corp. P.O. # 54-Z-70522-B, Item # E-34, WAPD S.P.I.N.  
PGECSAHEL Atlas Job # 1372-9

(Brief description of purpose of the vessel, as Air Tank, After Cooler, Jacketed Cooker, etc. State contents of each part.)

We certify that the statements made in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME Code for Pressure Vessels, Section VIII, Division 1.

Date MARCH 13 1969 Signed Atlas Ind., Mfg. Company (Manufacturer) By Frank D. Lorenzo

Certificate of Authorization Expires 12/31/70 #5027

**CERTIFICATE OF SHOP INSPECTION**

VESSEL MADE BY Atlas Industrial Mfg. Company at 81 Somerset Place, Clifton, N.J.

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province \_\_\_\_\_ and employed by Commercial Union Insurance Group of New York, New York have inspected the pressure vessel described in this manufacturer's data report on MARCH 13 1969, and state that to the best of my knowledge and belief, the manufacturer has constructed this pressure vessel in accordance with the applicable sections of the ASME Boiler and Pressure Vessel Code.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this manufacturer's 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 MARCH 13 1969

John P. Russo  
Inspector's Signature

Commissions N.B. # 6214  
Nat'l Board, State, or Province and No.

**CERTIFICATE OF FIELD ASSEMBLY INSPECTION**

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province \_\_\_\_\_ and employed by \_\_\_\_\_ of \_\_\_\_\_

\_\_\_\_\_ have compared the statements in this manufacturer's data report with the described pressure vessel and state that parts referred to as data items \_\_\_\_\_ not included in the certificate of shop inspection have been inspected by me and that to the best of my knowledge and belief the manufacturer has constructed and assembled this pressure vessel in accordance with the applicable sections of the ASME

Boiler and Pressure Vessel Code. The described vessel was inspected and subjected to a hydrostatic test of \_\_\_\_\_ psi.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this manufacturer's 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 \_\_\_\_\_ 19 \_\_\_\_\_

\_\_\_\_\_  
Inspector's Signature

Commissions \_\_\_\_\_  
Nat'l Board, State, or Province and No.