



**Pacific Gas and  
Electric Company®**

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August 27, 2007

PG&E Letter DCL-07-084

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

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

Dear Commissioners and Staff:

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

There are no new or revised regulatory commitments as defined by the Nuclear Energy Institute 99-04, "Guidelines for Managing NRC Commitment changes," dated July 1999, in this report.

If you have any questions regarding the information enclosed or other ISI Program activities, please contact Gary Close, Manager Technical Support Engineering, at (805) 545-4122.

Sincerely,

Donna Jacobs

ddm/469/A0661378

Enclosure

cc: Diablo Distribution  
cc/enc: Michael A. Brown, NRC Acting Senior Resident  
Bruce S. Mallett, NRC Region IV  
Alan B. Wang, NRC Project Manager  
State of California, Pressure Vessel Unit

A047

NRK

Enclosure  
PG&E Letter DCL-07-084

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

Diablo Canyon Power Plant

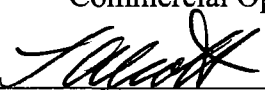
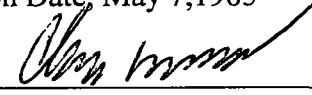
Unit 1

USNRC Docket No. 50-275

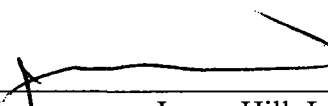
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Commercial Operation Date, May 7, 1985

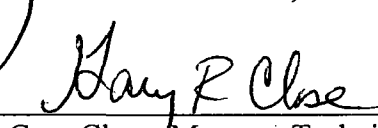
Prepared By:

   
Thomas L. Alcott and Chris Beard, ISI Specialists

Reviewed By:

  
James Hill, Lead ISI Specialist

Approved By:

  
Gary Close, 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: 8/08/07

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

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

**ORIGINAL**

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**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 1 was completed during the fourteenth refueling outage from April through May, 2007. The DCPP Unit 1 fourteenth refueling outage (1R14) was the first outage in the first period within the third 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-6240, 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.

System pressure tests on Class 1 and 2 systems conducted during the period following 1R13, and up to and including 1R14, are reported in Section E.

Appendix J, containment penetration pressure tests 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, Repair / Replacement Activities, contains the completed ASME Code Data Report Form NIS-2 for those 1R14 work packages closed prior to and including June 30, 2007 and for any mid cycle and 1R13 packages closed after January 4, 2006. NIS-2 reports for 1R14 work packages that are closed after June 30, 2007 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 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
Reactor Coolant Pump 1-2	Westinghouse	507	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	Wisner & 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 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 04/07 to 05/07
9. Inspection Period Identification: First
10. Inspection Interval Identification: Third
11. Applicable Edition of Section XI 2001 Addenda 2003
12. Date/Revision of Inspection Plan: February 2007, Revision A
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 8/14/2007 Signed Engineering Manager By Gary R Close  
Owner Gary Close

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 04/07 to 05/07, 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 8/15 20 07

Kenny Kim  
Inspector's Signature/Kenny Kim

Commissions CA 1828, NB 9990 A.N.I.C.  
National Board, State, Province and No.

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**FORM NIS-1 (back)**

8. Examination Dates 04/07 to 05/07
9. Inspection Period Identification: First
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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 8/14/2007 Signed Engineering Manager By Gary Z. Close  
 Owner Gary Close

**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 04/07 to 05/07, 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 8/15 2007  
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**

## THIRD INTERVAL, FIRST PERIOD, FIRST REFUELING OUTAGE REPORT (1R14)

MAJOR ITEM: REACTOR VESSEL

## 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							
B6.10	RPV1 Closure Head Nuts	RPV Bolting > 2" diam.	RPV1 Nuts 1 to 18	VT-1	5-13-07	18 Items Examined, 33% Completed	NRI
B6.20	RPV1 Closure Head Studs		RPV1 Studs 1 to 18	UT	5-13-07	18 Items Examined, 33% Completed	NRI
B6.50	RPV1 Closure Washers		RPV1 Washer 1 to 18	VT-1	5-13-07	18 Items Examined, 33% Completed	NRI
B-N-1, 2, & 3							
B13.10	Reactor Vessel 1 Interior	Reactor Vessel 1 Interior	Reactor Vessel 1 Interior	VT-3	5-23-07	1 Item Examined, 100% Completed	NRI

## THIRD INTERVAL, FIRST PERIOD, FIRST REFUELING OUTAGE REPORT (1R14)

MAJOR ITEM: STEAM  
GENERATORS

## ASME SECTION XI SYSTEMS - CLASS 1

CAT B16.20		STEAM GENERATOR TUBING (The following percentages apply to inservice tubes.)			PAGE 1 of 1
SCOPE	PROBE	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 2 U-bends	Plus Point	100%	100%	100%	100%
Rows 3 to 8 U-bends	Plus Point	20%	20%	20%	20%
Repeat PWSCC inds. at dents & top of tubesheet	Plus Point	100%	100%	100%	100%
HotLeg top of tubesheet	Plus Point	100%	100%	100%	100%
≥ 5 volt dented TSP intersections	Plus Point (Note 1)	100% hot leg and cold leg	100% 1H to 7C 20% 6C	20% 1H-7H, plus expanded scope; 100% cold leg	100% 1H to 6H 20% 7H
> 2 and < 5 volt dented TSP intersections	Plus Point (Note 1)	100% hot leg and cold leg	100% 1H to 7C 20% 6C	20% 1H plus expanded scope; 100% 7C to 4C	100% 1H to 6H 20% 7H
≤ 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%
>5 volt free span dings	Plus Point	20%	20%	20%	20%
≥ 2 volt ding coincident with AVB location	Plus Point	20%	20%	20%	20%
Paired dings	Plus Point	20%	20%	20%	20%
New cold leg thinning (CLT) indications	Plus Point (Note 2)	100%	100%	100%	100%
Bobbin "I" codes	Plus Point	100%	100%	100%	100%
TSP ligament inds.	Plus Point	100%	100%	100%	100%
Tubes plugged		17	25	14	6

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

Note 2 : Included &gt;1.5 volt repeat CLT indications not inspected since 1R12

Pacific Gas and Electric Company

DIABLO CANYON POWER PLANT - UNIT 1

SERVICE DATE: 05/07/85

THIRD INTERVAL, FIRST PERIOD, FIRST REFUELING OUTAGE REPORT (1R14)

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							
B6.200	RCP 1-2 Main Flange Nuts	Pump Bolting > 2" diam.	RCP 1-2 Nuts 1-24	VT-1	5-7-07	24 Items Examined; 100% Completed	NRI
B-G-2							
B7.50	U1 Pipe Flange Bolting	S6-727-6	RV-8010C Inlet Flange Studs	VT-1	5-10-07	12 Studs Examined, 100% Completed	NRI
B7.60	RCP Lower Seal Housing Bolts	RCP 1-2 Lower Seal Housing	RCP Seal Housing Socket Head Screws	VT-1	5-5-07	12 Screws Examined, 100% Completed	NRI

Pacific Gas and Electric Company

DIABLO CANYON POWER PLANT - UNIT 1

SERVICE DATE: 05/07/85

THIRD INTERVAL, FIRST PERIOD, FIRST REFUELING OUTAGE REPORT (1R14)

MAJOR ITEM: PUMPS and VALVES

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-K							
B10.30	RC Pump Welded Attachment	RCP 1-2 Support Lug	Lug Weld No. 2	PT	5-11-07	1 Item Inspected; 50% Completed	NRI
B-M-1 B-M-2							
B12.50	Accumulator Inj Lp 2: Valve Interior	S6-253-10SPL+	8948B Interior	VT-3	5-9-07	1 Item Inspected; 100% Completed	NRI



Pacific Gas and Electric Company

DIABLO CANYON POWER PLANT - UNIT 1

SERVICE DATE: 05/07/85

THIRD INTERVAL, FIRST PERIOD, FIRST REFUELING OUTAGE REPORT (1R14)

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)	Loop 1 Spray Line	S6-13-4SPL	WIB-414	UT	5-8-07	RI-ISI: 14 Items Inspected; 21% Completed	NRI
			WIB-411	UT	5-8-07		NRI
	Pressurizer Spray Line	S6-15-4SPL	WIB-394	UT	5-8-07		NRI
	Pzr RV-8010A Inlet	S6-729-6SPL+	WIB-316	UT	5-4-07		NRI
	Pzr RV-8010B Inlet	S6-728-6SPL+	WIB-326	UT	5-4-07		NRI
	Pzr RV-8010C Inlet	S6-727-6SPL+	WIB-335	UT	5-4-07		NRI
	Loop 1 CL Drain RCDT	S6-958-2SPL+	WIB-22	PT	5-12-07		NRI
	Loop 3 CL Drain RCDT	S6-960-2SPL+	WIB-251	PT	5-12-07		NRI
	HL Recirc bef V-8702	S6-109-14SPL	WIB-237	UT	5-3-07		NRI

Pacific Gas and Electric Company

DIABLO CANYON POWER PLANT - UNIT 1

SERVICE DATE: 05/07/85

THIRD INTERVAL, FIRST PERIOD, FIRST REFUELING OUTAGE REPORT (1R14)

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
RI-ISI cont'd	Reac Cool Pp 1-2 Seal Wtr In	S6-55-2	WIB-984	PT	5-13-07		NRI
			WIB-985	PT	5-13-07		NRI
	Reac Cool Pp 1-4 Seal Wtr In	S6-57-2	WIB-1018	PT	5-6-07		NRI
			WIB-1016	PT	5-6-07		NRI
			WIB-1010	PT	5-6-07		NRI

## THIRD INTERVAL, FIRST PERIOD, FIRST REFUELING OUTAGE REPORT (1R14)

## MAJOR ITEM: SUPPORTS

## ASME SECTION XI SYSTEMS - CLASS 1

PAGE 1 of 1

## CATEGORY

F-A

SUPPORTS

F1.10

SUPPORT COMPONENTS

The required inservice inspection was performed on 21 (6% Total Population) Class 1 supports during the fourteenth refueling outage between the dates of 05/02/07 and 05/25/07. The supports were found acceptable. Data reports are on file.

LINE	SUPPORT	LINE	SUPPORT	LINE	SUPPORT	LINE	SUPPORT
6	Support A	16	51-24V	730	48-26CS	3845	11-15SL
14	52-19V	24	52-3V	1172	48-27V	3857	2156-35
14	42-63R	51	2152-72	1665	56N-4R	3857	2156-36
14	11-17SL	235	10-24SL	1665	56N-5V		
15	42-5R	254	10-4SL	1995	57N-34R		
15	11-143R	729	48-1R	1995	57N-33R		

**SECTION D**  
**CLASS TWO COMPONENTS**

Pacific Gas and Electric Company

DIABLO CANYON POWER PLANT - UNIT 1

SERVICE DATE: 05/07/85

THIRD INTERVAL, FIRST PERIOD, FIRST REFUELING OUTAGE REPORT (1R14)

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)	Cent Chrg Pump 1-1 Disch	S6-45-4	WIC-45A	UT	4-26-07	RI-ISI: 5 Items Inspected; 13% Completed	NRI
	Cent Chrg Pump 1-2 Disch	S6-46-4	WIC-46A	UT	4-26-07		NRI
	Charging Injection Out	S6-2033-4	RB-2033-4	UT	4-26-07		NRI
			WIC-2033A	UT	4-26-07		NRI
	Charging Inj Out Cold Legs	S6-1979-4	WIC-1979A	UT	4-26-07		NRI

Pacific Gas and Electric Company

DIABLO CANYON POWER PLANT - UNIT 1

SERVICE DATE: 05/07/85

THIRD INTERVAL, FIRST PERIOD, FIRST REFUELING OUTAGE REPORT (1R14)

MAJOR ITEM: INTEGRAL  
ATTACHMENTS

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-C							
C3.10	Pressure Vessels Welded Attach's.	Seal Injection Filter 1-1	Support Leg Attachment	VT-3	5-31-07	VT-3 in-lieu of PT per relief request NDE-SFL; 1 Item Examined; 100% Completed	NRI
C3.20	Lp 4 H/L to RHR Welded Attach's.	Line S1-927-14III	57S-20V Attach. Paramount	PT	5-16-07	6 Items Examined; 2.5% Completed	NRI
	RHR to H/L 1&2. Welded Attach's.	Line S1-985- 12IIIP	40-46A Attach. X219	PT	5-12-07		NRI
	S/G Stm Out 1-1. Welded Attach's	Line K15-228- 28V	1020-1V Attach. Lugs	MT	5-9-07		NRI
	S/G FW Sup 1-1. Welded Attach's	Line K16-554- 16V	1037-7V Attach. Paramount	MT	5-9-07		NRI
	RHR to C/L 1&2. Welded Attach's	Line S6-509-8III	57N-5R Attach. Paramount	PT	5-7-07		NRI
	CCP 1-1 Disch. Welded Attach's	Line S6-45-4	73-35R Attach. Lugs	PT	5-11-07		NRI

Pacific Gas and Electric Company

DIABLO CANYON POWER PLANT - UNIT 1

SERVICE DATE: 05/07/85

THIRD INTERVAL, FIRST PERIOD, FIRST REFUELING OUTAGE REPORT (1R14)

MAJOR ITEM: BOLTING

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-D							
C4.30	SI Pump 1-1; Bolting >2" dia.	Safety Injection Pump 1-1	8 Studs >2" dia. (Items 1 thru 7 & 11)	UT	5-11-07	8 Studs Inspected; 100% Completed	NRI

## THIRD INTERVAL, FIRST PERIOD, FIRST REFUELING OUTAGE REPORT (1R14)

MAJOR ITEM: PIPING  
SUPPORTSASME SECTION XI SYSTEMS -  
CLASS 2

PAGE 1 of 1

## CATEGORY

F-A

SUPPORTS

F1.20

SUPPORT COMPONENTS

The required inservice inspections were performed on 22 (2.6% Total Population) Class 2 hangers prior to and during the fourteenth refueling outage between the dates of 04/26/07 and 05/31/07. Results were found acceptable. Data reports are on file.

LINE	SUPPORT	LINE	SUPPORT	LINE	SUPPORT	LINE	SUPPORT
S/G 1-2	SG-01-02-NE	RHR Pp 1-1	4-22SL	508	15-65SL	927	12-7SL
S/G 1-2	SG-01-02-NW	RHR Pp 1-1	4-23SL	509	15-80SL	927	56N-2R
S/G 1-2	SG-01-02-SE	SI Pp 1-1	Pump Pedestal and Base	509	57N-5R	927	57S-20V
S/G 1-2	SG-01-02-SW	CCP 1-1	Four Support Legs and Base	554	1037-7V	985	40-46A
S/G 1-2	Belly Band	228	1020-1V	557	1049-17SL	3844	42-36R
Seal Injection Filter 1-1	3 Support Legs	314	13-58SL				



**SECTION E**  
**SYSTEM PRESSURE TESTS**

## THIRD INTERVAL, FIRST PERIOD, FIRST REFUELING OUTAGE REPORT (1R14)

MAJOR ITEM: PRESSURE TESTS

ASME SECTION XI SYSTEMS - CLASS 1 &amp; 2

PAGE 1 of 1

TEST NO.	CLASS	DESCRIPTION	EXAM DATE	COMMENTS	RESULTS
1	1	Reactor Coolant System and Connected Piping	05/27/07	STP-R8A	NRI
2	1	Excess Letdown between 8166 & 8167	05/27/07	STP-R8A	NRI
3	1	Pressurizer Auxiliary spray	05/27/07	STP-R8A	NRI
4	1	Alternate Charging	05/27/07	STP-R8A	NRI
5	1	RHR & SI to Cold Legs	05/27/07	STP-R8A	NRI
6	1	Charging Injection Inside Cont.	05/27/07	STP-R8A	NRI
7	1	Safety Injection Inside Cont, From 8905A-D to 8949A-D	05/27/07	STP- R8A	NRI
8	1	RHR Between 8702 & 8701	05/27/07	STP-R8A	NRI

Pacific Gas and Electric Company

DIABLO CANYON POWER PLANT - UNIT 1

SERVICE DATE: 05/07/85

THIRD INTERVAL, FIRST PERIOD, FIRST REFUELING OUTAGE REPORT (1R14)

MAJOR ITEM: PRESSURE TESTS

ASME SECTION XI SYSTEMS - CLASS 1 & 2

PAGE 2 of 2

TEST NO.	CLASS	DESCRIPTION	EXAM DATE	COMMENTS	RESULTS
3	2	Auxiliary Feedwater Pump X-1 Discharge	5/31/07		NRI
12	2	Charging Injection 8801A & B to 8820	5/27/07		NRI
18	2	Accumulator, RHR & Charging Test Lines	5/3/07		NRI
22	2	Safety Injection Pumps Discharge to Hot Legs from 8802A & B to 8904A-D	5/27/07		NRI
27	2	Cont Spray Pump Disch Piping to 9006A	5/4/07		NRI
28	2	Cont Spray Pump Disch Piping to 9006B	5/6/07		NRI

## **SECTION F**

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

## THIRD INTERVAL, FIRST PERIOD, FIRST REFUELING OUTAGE REPORT (1R14)

MAJOR ITEM: Containment Penetration  
Appendix J

## ASME SECTION XI SYSTEMS - CLASS 1 &amp; 2

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
19	V-619	Acceptable	5/3/07	61	V-661	Acceptable	5/24/07	52F	V-678	Acceptable	5/8/07
20	V-620	Acceptable	5/3/07	62	V-662	Acceptable	5/24/07	78A	V-678	Acceptable	5/8/07
22	V-623	Acceptable	5/3/07	63	V-663	Acceptable	5/22/07	78B	V-678	Acceptable	5/8/07
23	V-623	Acceptable	5/3/07	65	V-665	Acceptable	4/16/07	79	V-679	Acceptable	5/7/07
30	V-630	Acceptable	5/6/07	68	V-668	Acceptable	5/9/07	82A	V-682A	Acceptable	5/8/07
31	V-631	Acceptable	5/16/07	69	V-668	Acceptable	5/9/07	82B	V-682B	Acceptable	5/8/07
35	V-635	Acceptable	5/18/07	71	V-671	Acceptable	5/14/07	82C	V-682B	Acceptable	5/8/07
45	V-645	Acceptable	5/19/07	76A	V-676A	Acceptable	5/21/07	83B	V-683	Acceptable	5/14/07
51B	V-651B	Acceptable	5/12/07	76B	V-676B	Acceptable	5/15/07				
56	V-656	Acceptable	5/12/07	52E	V-678	Acceptable	5/8/07				

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

## THIRD INTERVAL, FIRST PERIOD, FIRST REFUELING OUTAGE REPORT (1R14)

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 5 components and 12 supports during the fourteenth refueling outage.

CATEGORY	Name of Component	System	Exam Type	Work Order No.	Other Ident. Line No
B-G-1					
	RCP 1-2 Case Hydraulic Nut	7	VT-1	CO210949-02	RCP 1-2
B-G-2					
	RCS-1-RV-8010A	7	VT-1	R0282969	729
	RCS-1-RV-8010B	7	VT-1	R0282901	728
	RCS-1-RV-8010C	7	VT-1	R0282906	727
	RPV Head Pen-76 CETNA	7	VT-1	C0211487	RV1
F-A					
	1049-4SL	3	VT-3	C0205901	556
	1049-1SL	3	VT-3	C0205899	557
	1033-1SL	4	VT-3	C0206529	226
	11-91SL	4	VT-3	C0211198	593
	73-144	8	VT-3	C0195432	1466
	CCP 1-3	8	VT-3	C0195440	CCP3
	CCP 1-3	8	VT-3	C0196060	CCP3
	10-25SL	9	VT-3	C0206509	235
	12-70SL	9	VT-3	C0206514	1976
	4-45SL	10	VT-3	C0206505	930
	15-118SL	10	VT-3	C0206523	2458
	16-55SL	14	VT-3	C0206524	321

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



Pacific Gas and Electric Company

DIABLO CANYON POWER PLANT - UNIT 1

SERVICE DATE: 05/07/85

THIRD INTERVAL, FIRST PERIOD, FIRST REFUELING OUTAGE REPORT (1R14)

MAJOR ITEM: AUGMENTED EXAMINATIONS

CONTAINMENT EXAMS

PAGE 1 of 1

CATEGORY ITEM	DESCRIPTION	COMPONENT / LINE	WELD OR COMPONENT NO.	EXAM TYPE	EXAM DATE	COMMENTS	RESULTS
Augmented							
	RC Pump 1-1 Flywheel	RC Pump 1-1 Flywheel	Flywheel Inner Half Radius	UT	5-7-07		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 June 30, 2007  
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 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 - 2001- 03 Addenda, Code Case N/A
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-1-535	Kerotest Corp	ASN2-5	N/A	C0206640	Line-555	N/A	Replaced (1)	<input checked="" type="checkbox"/>	N/A
Line-556	PGE	N/A	N/A	C0205385	Line-556	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) Installed and Removed Temporary Supports
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐ Other \_\_\_\_\_  
Pressure 1005 PSIG Test Temp. 545 °F
9. Remarks Pressure and temperature shown is 'Main Steam'.

**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 Gary R Close Engineering Manager 8/14/07  
(Owner or Owner's Designee) Gary Close (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 1/04, 2006 to 6/30, 2007, 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 8/15/07 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**  
**As Required by the Provisions of ASME Code Section XI**

1. Owner Pacific Gas and Electric Company Date June 30, 2007  
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 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/A
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-1-RV-12	Dresser	BM07858	N/A	C0199509	Line-1065	N/A	Replaced (1) (2)	<input type="checkbox"/>	Yes
MS-1-FCV-44	Schutte and Koerting Co	N690549	N/A	R0194577	Line-225	N/A	Replaced (3)	<input type="checkbox"/>	No
22-336SL	Pacific Scientific	7826	N/A	C0194742	Line-1020	N/A	Replaced (7)	<input type="checkbox"/>	No
10-96SL	Pacific Scientific	6853	N/A	C0200327	Line-3915	N/A	Replaced (7)	<input type="checkbox"/>	Yes

7. Description of Work (1)Replaced Valve; (2)Replaced Inlet Bolting; (3)Replaced Internals; (7) Replaced Snubber
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐ Other \_\_\_\_\_  
Pressure 1005 PSIG Test Temp. 545 °F ☐ 1989 Code Pressure Test Conducted at NOP IAW Code Case N-416-1
9. Remarks Pressure and temperature shown is 'Main Steam'.

**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 Gary R. Clog Engineering Manager 8/14/07  
(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 1/04, 2006 to 6/30, 2007,  
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 8/15/07 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**  
**As Required by the Provisions of ASME Code Section XI**

1. Owner Pacific Gas and Electric Company Date June 30, 2007  
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 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/A
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)
RCP 1-2	Westinghouse	9-114E911G05	N/A	C0196993	N/A	N/A	Replaced(1) (2)	<input type="checkbox"/>	No
RCS-0-RV-8010	Crosby Valve	U2A	N/A	R0263732	Stock	N/A	Replaced (6)	<input type="checkbox"/>	Yes
10-128SL	Pacific Scientific	23090	N/A	C0194779	Line-14	N/A	Replaced (7)	<input type="checkbox"/>	No
10-13SL	Pacific Scientific	9834	N/A	C0197234	Line-16	N/A	Replaced (8)(9)	<input type="checkbox"/>	No

7. Description of Work (1) Replaced Internals; (2) Replaced Flange Bolting; (6) Replaced Nozzle  
(7) Replaced Snubber; (8) Replaced Load Pin; (9) Replaced Spherical Bearing
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ Other       
Pressure      PSIG Test Temp.      °F ☐ 1989 Code Pressure Test Conducted at NOP IAW Code Case N-416-1
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 Gary R Close Engineering Manager 8/14/07  
(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 1/04, 2006 to 6/30, 2007, 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 8/15/07 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 June 30, 2007  
77 Beale Street, San Francisco, CA 94106 Sheet 2 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 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 - 2001- 03 Addenda, Code Case N/A
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)
RCP 1-2	Westinghouse	9-114E911G05	N/A	C0201155	N/A	N/A	Replaced (3)	<input type="checkbox"/>	No
RCP 1-2	Westinghouse	9-114E911G05	N/A	C0210949	N/A	N/A	Replaced (4)	<input type="checkbox"/>	No
SG 1-1	Westinghouse	1041	68-12	R0287619	SG11	1984	Repaired (5)	<input type="checkbox"/>	Yes
SG1-3	Westinghouse	1043	68-14	R0287620	SG13	1984	Repaired (5)	<input type="checkbox"/>	Yes
SG 1-4	Westinghouse	1044	68-15	R0287621	SG14	1984	Repaired (5)	<input type="checkbox"/>	Yes
SG 1-2	Westinghouse	1042	68-13	R0287622	SG12	1984	Repaired (5)	<input type="checkbox"/>	Yes
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	
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								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	

7. Remarks (3) Replaced Seal House Bolting; (4) Replaced 1 Flange Nut; (5) Plugged Tubes
- 
- 
- 
-

**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 June 30, 2007  
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.

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)
CCP 1-2	Pacific Pumps	49187	N/A	C0182573	CCP2	N/A	Replaced (1)	<input type="checkbox"/>	No
CVCS-1-8356B	Anchor Darling	ET315-1-5	N/A	C0198712	Line-59/1480	N/A	Replaced (4)(5)	<input checked="" type="checkbox"/>	No
PDP 1-3	Union Pump	274173	N/A	R0178767	PDP1	N/A	Replaced (11)	<input checked="" type="checkbox"/>	No
22-512SL	Anchor Darling	919	N/A	C0194762	Line-58	N/A	Replaced (12)	<input type="checkbox"/>	No

7. Description of Work (1) Replaced Mechanical Seal Plate; (4) Replaced Valve; (5) Replaced Piping;  
(11) Replaced Valves; (12) Replaced Snubber

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐ Other \_\_\_\_\_  
Pressure \*\*\* PSIG Test Temp. N/R °F ☒ 1989 Code Pressure Test Conducted at NOP IAW Code Case N-416-1

9. Remarks \*\*\* R0178767, 2500 psig; C0198712, Seal Water Inj return inservice; C0195440, 2600 psig;  
C0195441 & C0195552, 2500 psig; C0206690, 104 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 Gary Close Engineering Manager 8/14/07  
(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 1/04, 2006 to 6/30, 2007 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 8/15/07 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 June 30, 2007  
77 Beale Street, San Francisco, CA 94106 Sheet 2 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 - 2001- 03 Addenda, Code Case N/A

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)
CCP 1-2	Pacific Pumps	49187	N/A	C0200712	CCP2	N/A	Replaced (7)	<input type="checkbox"/>	No
CCP 1-3	Flowserve Corp.	05RLCA02489010 01	N/A	C0195440	CCP3	2007	Replaced (2)	<input checked="" type="checkbox"/>	No
RO-441	PG&E	N/A	N/A	C0195441	Line-47	2006	Replaced (3)	<input checked="" type="checkbox"/>	No
RO-443	PG&E	N/A	N/A	C0195552	Line-7067	2006	Replaced (3)	<input checked="" type="checkbox"/>	No
CCP 1-3	Flowserve Corp.	05RLCA02489010 01	N/A	C0196060	CCP3	2007	Replaced (6)	<input type="checkbox"/>	No
CCP 1-3	Flowserve Corp.	05RLCA02489010 01	N/A	C0209928	CCP3	2007	Replaced (6)	<input type="checkbox"/>	No
CVCS-1-FCV-110A	Control Components Inc.	102993-010-1	N/A	C0206690	Line-736	2007	Replaced(8)	<input checked="" type="checkbox"/>	No
23-345R	PG&E	N/A	N/A	C0195247	Line-7066	N/A	Replaced (9)	<input type="checkbox"/>	No
23-352R	PG&E	N/A	N/A	C0195255	Line-7066	N/A	Replaced (9)	<input type="checkbox"/>	No
23-357R	PG&E	N/A	N/A	C0195372	Line-7066	N/A	Replaced (9)	<input type="checkbox"/>	No
23-358R	PG&E	N/A	N/A	C0195374	Line-7066	N/A	Replaced (9)	<input type="checkbox"/>	No
23-344A	PG&E	N/A	N/A	C0195377	Line-7066	N/A	Replaced (9)	<input type="checkbox"/>	No
23-348R	PG&E	N/A	N/A	C0195380	Line-7066	N/A	Replaced (9)	<input type="checkbox"/>	No
288-152R	PG&E	N/A	N/A	C0195388	Line-47	N/A	Replaced (9)	<input type="checkbox"/>	No
288-154R	PG&E	N/A	N/A	C0195390	Line-47	N/A	Replaced (9)	<input type="checkbox"/>	No
288-156R	PG&E	N/A	N/A	C0195392	Line-47	N/A	Replaced (9)	<input type="checkbox"/>	No
288-155R	PG&E	N/A	N/A	C0195391	Line-44	N/A	Replaced (9)	<input type="checkbox"/>	No
73-144	PG&E	N/A	N/A	C0195432	Line-1466	N/A	Replaced (10)	<input type="checkbox"/>	No
288-80R	PG&E	N/A	N/A	C0195436	Line-44	N/A	Replaced (10)	<input type="checkbox"/>	No
99-108	PG&E	N/A	N/A	C0206693	Line-736	N/A	Replaced (10)	<input type="checkbox"/>	No
99-440	PG&E	N/A	N/A	C0206694	Line-736	N/A	Replaced (10)	<input type="checkbox"/>	No
99-78B	PG&E	N/A	N/A	C0206696	Line-2401	N/A	Replaced (10)	<input type="checkbox"/>	No

7. Remarks (2) Replaced Pump and associated piping/valves IAW DCN 049704; (3) Fabricated Orifice Plate (6) Modified Base Plate;  
 (7) Modified Mech. Seal Gland Plate; (8) Replaced Valve; (9) Installed New Support ; (10) Modified Support

**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 June 30, 2007  
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 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.

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)
SI-1-8805B	Anchor Darling	6820-1-21	N/A	C0174232	Line-1988	Yes	Replaced (1)	<input type="checkbox"/>	Yes
Line-7076	PG&E	N/A	N/A	C0197316	Line-7076	N/A	Replaced (2)	<input checked="" type="checkbox"/>	No
Line-7077	PG&E	N/A	N/A	C0197316	Line-7077	N/A	Replaced (2)	<input checked="" type="checkbox"/>	No
74-41R	PG&E	N/A	N/A	C0197317	Line-4296	N/A	Replaced (4)	<input type="checkbox"/>	No
22-296SL	Pacific Scientific	25315	N/A	C0194741	Line-3858	N/A	Replaced (3)	<input type="checkbox"/>	No
56-25	PG&E	N/A	N/A	C0196820	Line-1991	N/A	Replaced (4)	<input type="checkbox"/>	No
56-24	PG&E	N/A	N/A	C0196821	Line-1991	N/A	Replaced (4)	<input type="checkbox"/>	No
288-158A	PG&E	N/A	N/A	C0197317	Line-7077	N/A	Replaced (5)	<input type="checkbox"/>	No

7. Description of Work (1) Replaced Bonnet Bolting; (2) Installed New Piping; (3) Replaced Snubber; (4) Removed Support;  
(5) Installed Support

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☐ Other \_\_\_\_\_  
Pressure 190 PSIG Test Temp. N/R °F ☒ 1989 Code Pressure Test Conducted at NOP IAW Code Case N-416-1

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 Gary R. Close Engineering Manager 8/14/07  
(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 1/04, 2006 to 6/30, 2007,  
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 8/15/07 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>June 30, 2007</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>1</u>
3. Work Performed by	<u>Owner</u> <u>See Above</u>	Repair Org.	<u>P.O. No., Job No., etc.</u>
4. Identification of System	<u>Safety Injection System (09)</u>		
5. (a) Applicable Construction Code	<u>See Work Order</u>	19	<u>Edition</u>
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements -	<u>2001- 03</u>	Addenda, Code Case	<u>N/A</u>

[illegible]

7. Remarks	(3) Replaced Snubber; (6) Replaced Clamp Nut; (7) New Welded Attachments to Piping

**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 June 30, 2007  
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 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/A

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-1-RV-8707	Crosby Valve	N7237-00-0001	N/A	C0199341	94-2513	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) Replaced Nozzle and Returned to Stock;

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 Gary R. Close Engineering Manager 8/14/07  
(Owner or Owner's Designee) Gary Close (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 1/04, 2006 to 6/30, 2007, 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 8/15/07 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>June 30, 2007</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>1</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>Residual Heat Removal System (10)</u>		
5. (a) Applicable Construction Code	<u>See Work Order</u>	19	Edition
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements -	<u>2001,</u>	<u>03</u>	Addenda, Code Case
			<u>N/A</u>
6. Identification of components.			

[illegible]

7. Remarks (2) Replaced Snubber

**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 June 30, 2007  
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 - 2001- 03 Addenda, Code Case N/A
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)
58S-142R	PG&E	N/A	N/A	R0221534	Line-264	N/A	Replaced (I)	<input type="checkbox"/>	No
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	
								<input type="checkbox"/>	

7. Description of Work (1) Replaced Support Items
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 Gary Close Engineering Manager 8/14/07  
(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 1/04, 2006 to 6/30, 2007, 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 8/15/07 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  
As Required by the Provisions of ASME Code Section XI

1. Owner Pacific Gas and Electric Company Date June 30, 2007  
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 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 - 2001 03 Addenda, Code Case N/A
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)
16-55SL	Pacific Scientific	13624	N/A	C0206524	Line-321	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) Replaced Snubber
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 Gary R. Close Engineering Manager 8/14/07  
(Owner or Owner's Designee) Gary Close (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 1/04, 2006 to 6/30, 2007, 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 8/15/07 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**  
**As Required by the Provisions of ASME Code Section XI**

1. Owner Pacific Gas and Electric Company Date June 30, 2007  
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 Structures (45)
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 - 2001 03 Addenda, Code Case N/A
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)
Penetration-60	Brand Utility Services, Inc	N/A	N/A	C0210115	MP60	N/A	Replaced (1)	<input type="checkbox"/>	No
Penetration-60	Brand Utility Services, Inc	N/A	N/A	C0210185	MP60	N/A	Replaced (1)	<input type="checkbox"/>	No
								<input type="checkbox"/>	
								<input type="checkbox"/>	

7. Description of Work (1) Modified Temporary Flange
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 Gary R. Close Engineering Manager 8/14/07  
(Owner or Owner's Designee) Gary Close (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 1/04, 2006 to 6/30, 2007,  
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 8/15/07 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**  
**As Required by the Provisions of ASME Code Section XI**

1. Owner Pacific Gas and Electric Company Date June 30, 2007  
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 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 - 2001- 03 Addenda, Code Case \_\_\_\_\_ N/A
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)
A-09	Westinghouse	N/A	N/A	C0211264	RVST	N/A	Replaced (1)	<input checked="" type="checkbox"/>	No
F-08	Westinghouse	N/A	N/A	C0211264	RVST	N/A	Replaced (1)	<input checked="" type="checkbox"/>	No
L-15	Westinghouse	N/A	N/A	C0211264	RVST	N/A	Replaced (1)	<input checked="" type="checkbox"/>	No
J-10	Westinghouse	N/A	N/A	C0211264	RVST	N/A	Replaced (1)	<input checked="" type="checkbox"/>	No
H-15	Westinghouse	N/A	N/A	C0211528	RVST	N/A	Replaced (2)	<input checked="" type="checkbox"/>	No

7. Description of Work (1) Shorten and Reposition Flux Thimble Tubes; (2) Replaced Fitting
8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☒ Exempt ☐ Other \_\_\_\_\_  
Pressure 2235 PSIG Test Temp. N/R °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 Gary R. Close Engineering Manager 8/14/07  
(Owner or Owner's Designee) Gary Close (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 1/04, 2006 to 6/30, 2007,  
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 8/15/07 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.

## **SECTION J**

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

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

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. (66104) (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 Nom. 10- Corr. 13 11-1/2  
(Kind & Spec. No.) (Min. of range specified) Thk. 3/4 In. Allow. In. Diam 14 Ft. 3-5/16 Length 42 Ft. 3-11/16  
5. Seams: Long 9 H.T. Yes X.R. Yes Efficiency 3 %  
(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 Thickness Crown Knuckle Elliptical Conical Hemispherical Flat Side to Pressure  
(Top, bottom, ends) Radius Radius Ratio Apex Angle Radius Diameter (Convex or Concave)  
(a) Top 7 83-23/32 86 83-23/32 86 Concave  
(b) Top 7 86 86 Concave  
If removable, bolts used Alloy Steel SA-540 Gr. B-72 145,000 7" 56  
(Material, Spec. No. T.S., Size, Number) (Stress in design)  
7. Constructed for Operating press. 2,500 psi. at max. temp. 650 °F. at temp. of 40 °F. Charpy impact 30 ft-lb  
Design Hydrostatic Test 3125 psi.  
8. Safety or Relief Valve Outlets: Number 2 Size 1/2 Location Top  
9. Nozzles:  
Purpose (Inlet, Outlet, Drain) Number Diam. or Size Type Material Thickness Reinforcement 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 2-5/16 Integral Welded  
10. Inspection Manholes, No. 2 Size 12" Location Top  
Openings: Handholes, No. 2 Size 12" Location Top  
Threaded, No. 2 Size 12" Location Top  
11. Supports: Skirt No Lugs 4 Legs 4 Other None Attached Welded (Describe)  
(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 & Country)

<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 November 20 19 70 Signed Combustion Engineering, Inc. By H. N. Dinwiddie  
(Manufacturer)  
Certificate of Authorization Expires April 10, 1972 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.  
The undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of Connecticut and employed by Hartford Steam Boiler Insp. & 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 M. R. McLellan National Board No. 2928  
Inspectors Signature Commissions National Board or State and No.

44-1  
70700

DCBP  
MAILED  
FILE

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  
(Horiz. or Vert.)

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	<u>5-5/16</u>	<u>88-3/8</u>				<u>88-3/8</u>		<u>Concave</u>
(b) <u>      </u>								

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

7. Constructed for operating press.        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 Exit  
Outlet         
Body         
Extension       

Number	Diam. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
<u>4</u>	<u>29-7/16" I.D.</u>	<u>Forging</u>	<u>A-508-64 Cl. 1</u>	<u>2-11/32</u>	<u>Integral</u>	<u>Welded</u>
<u>4</u>	<u>29-7/16" I.D.</u>	<u>Forging</u>	<u>SA-182</u>	<u>2</u>	<u>Integral</u>	<u>Welded</u>

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

11. Supports: Skirt        Lugs        Legs        Other        Attached         
(Yes or No) (Number) (Number) (Describe) (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        By         
(Manufacturer)

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.