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BRIGGS, R.W. California, State of

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Pacific Gas and Electric Company

Diablo Canyon Power Plant
P.O. Box 56
Avila Beach, CA 93424
805/545-6000

Robert P. Powers
Vice President-Diablo Canyon
Operations and Plant Manager

April 18, 1997

PG&E Letter DCL-97-527



Mr. Roger W. Briggs, Executive Officer
California Regional Water Quality Control Board
Central Coast Region
81 Higuera Street, Suite 200
San Luis Obispo, CA 93401-5414

Dear Mr. Briggs:

Discharge Monitoring and Reporting Program
Diablo Canyon Power Plant -- NPDES No. CA0003751

In accordance with Order 90-09, NPDES No. CA0003751, enclosed is the First Quarter 1997 Report on Discharge Monitoring at Diablo Canyon Power Plant.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. The results of the influent and effluent monitoring presented are the observed results of the measurements and analyses required by the monitoring program, and is neither an assertion of the adequacy of any instrument reading or analytical result, nor an endorsement of the appropriateness of any analytical or measurement procedure. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

If you have any questions, please contact Drew Squyres at (805) 545-4439.

Sincerely,

Robert P. Powers

2525
1/1

9704290010 970331
PDR ADDCK 05000275
R PDR



Mr. Roger W. Briggs
April 18, 1997
Page 2

cc: Chief, Environmental Services Division
California Department of Fish and Game
Resources Building
1416 Ninth Street
Sacramento, CA 95814

Regional Administrator, Region 9
U. S. Environmental Protection Agency
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San Francisco, CA 94105
Attention: Carey Houk (W-5-3)

Regional Administrator
U.S. Nuclear Regulatory Commission
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U. S. Nuclear Regulatory Commission
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California Department of Fish and Game
Resources Building
1416 Ninth Street
Sacramento, CA 95814

Enclosure

PG&E Letter DCL-97-527

ENCLOSURE

FIRST QUARTER 1997

REPORT ON DISCHARGE MONITORING AT
DIABLO CANYON POWER PLANT

PACIFIC GAS AND ELECTRIC COMPANY
NUCLEAR POWER GENERATION

First Quarter 1997

**REPORT ON
DISCHARGE MONITORING AT
DIABLO CANYON POWER PLANT**

(NPDES No. CA0003751)

National Pollutant Discharge Elimination System

9704290010



PACIFIC GAS AND ELECTRIC COMPANY

First Quarter 1997

REPORT ON DISCHARGE MONITORING AT
DIABLO CANYON POWER PLANT

TABLE OF CONTENTS

	<u>page</u>
<u>OVERVIEW</u>	1
<u>SUMMARY OF MONITORING PROGRAM</u>	
A. <u>Monitoring of Plant Influent and Effluent</u>	4
B. <u>Monitoring of Receiving Waters</u>	5
C. <u>Acti-Brom Treatment Program</u>	5
APPENDIX 1	
NPDES Discharge Points	
APPENDIX 2	
Influent and Effluent Monitoring - January, 1997	
APPENDIX 3	
Influent and Effluent Monitoring - February, 1997	
APPENDIX 4	
Influent and Effluent Monitoring - March, 1997	
APPENDIX 5	
Acute Bioassay - January 13-17, 1997	
APPENDIX 6	
Chronic Bioassay - January 8-10, 1997	



OVERVIEW

- A. During the first quarter of 1997, discharges occurred from Discharge Paths 001 (once through cooling water), 001B, 001D, 001E, 001F, 001G, 001H, 001J, 001L, 001M, 001N, 001P, 002 through 015, and 017. No discharges occurred from Discharge Paths 001I, 001K, and 016. A list of all of the permit discharge pathways, including name and number, is provided in Appendix 1.
- B. On January 14, 1997 high readings from the Unit 2 discharge chlorine monitor were discovered for three injections on January 13 (2100) and January 14 (0900 and 1300). The readings were 188 ppb, 188 ppb, and 192 ppb, respectively, while the calculated Ocean Plan limit at the discharge is 178 ppb for a 20 minute injection with 4 circulating water pumps operating. The chlorine injection rate was decreased to compensate. This incident was reported verbally to Sorrel Marks of the CCRWQCB on January 14, 1997. She requested that a brief description of the event be included in this report.

Subsequent investigation indicated that the Unit 2 monitor readings were false high values. Elevated readings began after a January 13 calibration, while injection rates had not increased. The injection rates in use were considered average or below average from past experience. The Unit 1 discharge chlorine monitor and condenser water box monitors failed to reflect the dramatic increase shown by the Unit 2 discharge monitor. Condenser monitors did not indicate a significant change in demand that might explain the high values. After the injection rates were lowered, the Unit 2 monitor continued reading higher than expected (below NPDES limits). Both discharge monitors were recalibrated on January 15. During subsequent injections, their readings were similar and in expected ranges. The Unit 1 discharge monitor had slightly higher readings and the Unit 2 monitor had significantly lower readings. This investigation indicates that the high values on the Unit 2 discharge monitor were due to instrument error induced during the calibration on January 13.

- C. On January 23, 1997 the chlorine analyzer was taken out of service for maintenance. Following maintenance the analyzer was not realigned to the seawater system, so the 1600 Unit 1 injection was not monitored. The problem was discovered just prior to the 1700 Unit 2 injection and was realigned for that injection. However, the probe did not have time to become conditioned and the reading was a false high of approximately 200 ppb.

An engineering evaluation indicated that there were no actual exceedences of the NPDES limit. Instead, there were two missed monitoring incidents. For the Unit 1 injection at 1600, the waterbox analyzer showed that the chlorine injections had not changed from the previous conditions and the chemical injection rate was not changed. Previous and subsequent injections were well below the NPDES limit. For the Unit 2 injection at 1700, the waterbox analyzer also confirmed stable conditions and injection levels below the NPDES limit during the analyzer incident. Subsequent readings for the Unit 2 analyzer were normal without performing a calibration. It was determined that the probe had not been given enough time to be conditioned prior to the 1700 injection. This resulted in the false high reading. Personnel were counseled to prevent recurrence of this event.



Verbal notification to the CCRWQCB of missed chlorine monitoring is no longer required per a phone conversation with Sorrel Marks on July 9, 1996. She requested that instead of verbal notification, a description of missed chlorine monitoring and corresponding engineering evaluations be included in future quarterly reports in lieu of submitting a 5-day report. However, chlorination events that result in a exceedence of NPDES permit criteria shall be verbally reported.

- D. On January 30, 1997 a skiploader punctured an underground line releasing about 300 gallons of treated sewage water. The water flowed down the hill behind the intake structure and an estimated 10 gallons entered the ocean just north of the intakes. A makeshift repair stopped the flow of water until the lift station pump was turned off and the line could be permanently repaired. Since the treated sewage water is normally added to the cooling water and released via Discharge 001, this incident is a discharge to the ocean via a path that is not described in DCP's NPDES permit. This incident was reported verbally to Sorrel Marks on January 30, 1997. She requested that a brief description of the event be included in this report.
- E. On January 31, 1997 an operator discovered an unusually strong fragrance in the turbine building sump. The sump was overboarding at the time. The operator placed the sump on recycle, obtained concurrence from the chemistry foreman to transfer the material to the WHAT facility, and transferred the material. A sample of the material in the WHAT tank was analyzed and found to be non-hazardous prior to discharge. However, the WHAT facility was about 70% full before the unknown material was added. It is likely that the unknown material was some type of cleaning solution or floor wax since there had been a major floor cleaning and waxing effort in the turbine building the few days prior to the incident. DCP is reviewing the drains to make sure they are well marked with "DON'T DUMP HAZMAT DOWN DRAINS." This issue has also been evaluated for upgrading the General Employee Training that all protected area workers must attend. This incident was reported verbally to Sorrel Marks on February 5, 1997. She waived the 5-day report and requested that a brief description of the event be included in this report.
- F. On February 19, 1997 the Unit 1 discharge chlorine monitor indicated a 191 ppb reading for the 1600 injection. The calculated Ocean Plan limit for one 20-minute injection with 4 circulating water pumps operating is 178 ppb. Subsequent investigation indicated that the waterbox analyzers began trending up prior to this injection. Apparently ocean conditions (wind, temperature, and a concurrent low tide) contributed to lower bio-demand resulted in the higher Total Residual Oxidant (TRO). Consequently a higher residual chlorine level occurred at the discharge. Also, the monitor had just been calibrated and adjusted, producing higher values than previous injections. Injections were terminated after the 1600 injection and resumed at a lower level the following day. Personnel were counseled in the effects of calibrating and adjusting the instruments and the need to communicate this information with biofouling biologists prior to the next injection. This incident was reported verbally to Sorrel Marks on February 20, 1997. She waived the 5-day report and requested that a brief description of the event be included in this report.



- G. On March 19, 1997 the 1-2 condensate polisher sump overflowed due to a faulty level switch. Several hundred gallons of clean condensate water with trace levels of ethanolamine was released and some of it entered Diablo Creek. The on-duty fire officer observed about .5 to 1 gpm entering the creek. After the pumps were started and the level reduced, the sump stopped overflowing and condensate water stopped flowing into the creek. Chemistry tested the water and determined a pH of 8.2. They detected no radioactivity or oil sheen. On March 21, biologists inspected Diablo Creek downstream of the entry point and could find no indication of adverse affects to algae, invertebrates, or fish. Repairs were performed on an expedited basis. This incident was reported verbally to Sorrel Marks on March 20, 1997. She waived the 5-day report and requested that a brief description of the event be included in this report.
- H. Monitoring and Reporting Program 90-09 requires a discussion of the compliance record and corrective action in annual NPDES Influent and Effluent Monitoring reports. During a recent internal audit of the Environmental Protection Plan and NPDES Environmental monitoring, it was discovered that a corrective action for a November, 1995 incident had been inadvertently left out of the 1995 annual report. The compliance issue involved draining 120 gallons of intake cooling water through Discharge 002 instead of Discharge 001 as was committed to by PG&E in a letter dated July 19, 1995 (PG&E Letter DCL-95-156) to the CCRWQCB. The corrective actions were that personnel were counseled and changes were proposed to procedures and the intake piping to prevent this from happening in the future. Since then the proposed changes have been incorporated.
- I. In all cases, chemical, radiochemical, toxicity analyses, and receiving water monitoring were performed in accordance with chemical analysis and biological procedures contained in the Diablo Canyon Power Plant (DCPP), Units 1 and 2 Plant Manual, Volume 8, by State approved laboratories, or laboratories meeting the requirements specified in the CCRWQCB: "Standard Provisions and Reporting Requirements," dated January 25, 1985.



SUMMARY OF MONITORING PROGRAM

A. Monitoring of Plant Influent and Effluent

1. The results of the January, February, and March 1997 plant influent and effluent monitoring are reported on Q2 forms in **Appendices 2, 3, and 4**, respectively. Additional laboratory results are included behind the Q2 forms to ensure that all analytical data are reported "uncensored." The additional data are used to develop the "average" values reported on the Q2 forms when analyses are performed several times in one day (i.e., for TRC, an average value is reported on the Q2 form).
2. Results from one acute bioassay on water sampled from Discharge 001, performed January 13-17, 1997, are included in **Appendix 5**. The acute toxicity test results show that toxicity was .31 (one mortality occurred during the test in the 100% dilution). The results of this test and the previous quarter's test are used to calculate the six month median value. Measured toxicity for the fourth quarter of 1996 was 0. The calculated 6 month median from the two tests is .16. This value is below the six month median limit of .26. Action Request A0428965 is tracking 2nd quarter acute toxicity test results for continued compliance with the six month median acute toxicity limit. Since one mortality also occurred in the control, the observed results may actually be caused by handling stress rather than actual toxicity in the effluent.
3. Results from one chronic bioassay on water sampled from Discharge 001, performed January 8-10, 1997, are included in **Appendix 6**. The test results show that chronic toxicity was 1.0 (no chronic toxicity in the water sample).
4. Listed below are the detection limits used for plant effluent analyses performed during the quarter:

<u>Parameter</u>	<u>Detection Limit</u>
Oil and Grease	3 mg/l
Total Residual Chlorine	0.020 mg/l*
Suspended Solids	1 mg/l
Settleable Solids	0.1 mg/l
Ammonia (N)	0.041 mg/l
Metals (chelation extraction)	
Chromium	0.005 mg/l
Copper	0.003 mg/l
Nickel	0.003 mg/l
Zinc	0.003 mg/l

* Reference PG&E Letter DCL-94-192 submitted to Regional Water Quality Control Board, Central Coast Region, August 31, 1994.



B. Monitoring of Receiving Waters

1. Ecological Studies at Diablo Canyon

Ecological studies in the vicinity of Diablo Cove conducted during the first quarter continued under the Diablo Canyon Ecological Monitoring Program (EMP). This program was initiated on July 1, 1995 as required in revised Monitoring and Reporting Program 90-09 and replaces the Thermal Effects Monitoring Program (TEMP). Results of the EMP are reported along with other receiving water monitoring activities in separate biannual reports two months after summer and winter surveys.

2. Dissolved Oxygen Measurements

Dissolved oxygen measurements are reported in the biannual Receiving Water Monitoring reports.

3. Study plans for the shell debris deposition and foam studies are currently being reviewed and should be submitted to the DCCP Technical Working Group for review during 1997.

4. In Situ Bioassay

Results of the Mussel Watch Program will be reported to the CCRWQCB directly from the California Department of Fish and Game in their periodic report for this program.

C. Acti-Brom Treatment Program

Diablo Canyon Power Plant is continuing its use of the proprietary chemical Acti-Brom to control the growth of macrofouling organisms in its main circulating water conduits. Over the last twelve months numerous improvements were made to the Acti-Brom / sodium hypochlorite injection system. These changes now allow all four of the circulating water conduits to be chemically treated.

At the beginning of this quarter, three of DCCP's four circulating water conduits were being treated with Acti-Brom. The fourth conduit (conduit 1-1) was manually cleaned in November of 1996 and, therefore, did not require treatment for the remaining five months of Unit 1's fuel cycle. As in the past, each treated conduit received a twenty minute injection every four hours (six injections a day) of Acti-Brom in combination with sodium hypochlorite (NaOCl). Each injection had a nominal concentration of 200 parts per billion Total Residual Oxidant (TRO) when measured at the inlet waterbox of the condenser. Discharge TRO, measured at the plant outfall, was considerably lower due to dilution effects, the turbulent nature of the flow at the Discharge Structure, and additional chlorine demand contributed by the discharge from the other conduits.

Treatment of the 1-2 conduit was discontinued on March 19, 1997 in anticipation of the approaching 1R8 refueling outage (scheduled to begin on April 19, 1997). Acti-Brom treatment of both Unit 1 conduits will resume at the conclusion of the outage in May.



APPENDIX 1

DIABLO CANYON POWER PLANT

NPDES DISCHARGE POINTS	
DISCHARGE NUMBER	DESCRIPTION
001	Once-Though Cooling Water
001 A	Firewater Systems
001 B	Auxiliary Salt Water Cooling System
001 C	Discharge Deleted
001 D	Liquid Radioactive Waste Treatment System
001 E	Service Cooling Water System
001 F	Turbine Building Sump
001 G	Make-Up Water System Waste Effluent
001 H	Condensate Demineralizer Regenerant
001 I	Seawater Evaporator Blowdown
001 J	Condensate Pumps Discharge Header Overboard
001 K	Condenser Tube Sheet Leak Detection Dump Tank Overboard
001 L	Steam Generator Blowdown
001 M	Wastewater Holding and Treatment System
001 N	Sanitary Wastewater Treatment System
001 P	Seawater Reverse Osmosis System Blowdown
002	Intake Structure Building Floor Drains
003	Intake Screen Wash
004	Bio Lab and Storm Water Runoff
005, 008, 009, 013, 014, 015	Yard Storm Drains
006, 007, 010, 011, 012	Storm Water Runoff
016	Bio Lab Seawater Supply Pump Valve Drain
017	Seawater Reverse Osmosis System Blowdown Drain



APPENDIX 2

DIABLO CANYON POWER PLANT

Influent and Effluent Monitoring

January 1997



CILITY I.D.	YEAR / MO / DAY		YEAR / MO / DAY		STATE CODE	NPDES PERMIT #		
402003001	BEGINNING	97 / 01 / 01	ENDING	97 / 01 / 31	06	CA0003751		
STATION ANALYSIS UNITS SMPL TYPE FREQ.	INFLUENT TEMPERATURE DEGREES F METERED CONTINUOUS	EFFLUENT 001 TEMPERATURE DEGREES F METERED CONTINUOUS	DELTA TEMP TEMPERATURE DEGREES F METERED CONTINUOUS	EFFLUENT 001 FLOW MGD RECORDED DAILY	INFLUENT pH pH UNITS GRAB MONTHLY	EFFLUENT 001 pH pH UNITS GRAB MONTHLY (**)	EFFLUENT 001P pH pH UNITS GRAB MONTHLY	EFFLUENT 002 pH pH UNITS GRAB MONTHLY
1	57.4	76.4	19.0	2559				
2	57.7	76.7	19.0	2555	8.3	8.3	8.0	2 8.3
3	57.5	76.5	19.0	2559				
4	57.1	76.1	19.0	2563				
5	57.0	76.5	19.5	2566				
6	56.0	76.6	20.6	2561				
7	56.1	75.0	18.9	2563				
8	56.3	75.2	18.9	2564				
9	56.3	75.3	19.0	2559				
10	56.1	75.1	19.0	2563				
11	55.7	74.8	19.1	2561				
12	55.7	72.8	17.1	2564				
13	55.4	74.6	19.2	2559				
14	55.0	74.5	19.5	2472				
15	55.3	74.9	19.6	2554				
16	55.6	74.9	19.3	2566				
17	55.3	74.4	19.1	2563				
18	55.4	74.4	19.0	2564				
19	55.8	74.7	18.9	2561				
20	55.6	74.5	18.9	2564				
21	55.4	74.3	18.9	2564				
22	55.4	74.3	18.9	2559				
23	55.9	74.8	18.9	2561				
24	56.0	74.9	18.9	2561				
25	56.4	75.0	18.6	2472				
26	56.6	75.4	18.8	2561				
27	56.7	75.6	18.9	2563				
28	56.7	75.7	19.0	2559				
29	56.1	75.0	18.9	2472				
30	56.6	75.5	18.9	2472				
31	56.3	75.2	18.9	2568				
MONTHLY AVG	56.1	75.1	19.0	2550	8.3	8.3	8.0	8.3
MONTHLY HIGH	57.7	76.7	20.6	2568	8.3	8.3	8.0	8.3
MONTHLY LOW	55.0	72.8	17.1	2472	8.3	8.3	8.0	8.2
TIMES EXCEEDED	NO LIMIT	NO LIMIT	MAX 22 = 0	MAX 2760 = 0	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT
TIMES EXCEEDED			(**)					
TIMES EXCEEDED								

REMARKS: (*) NUMBER OF SAMPLES TAKEN DURING THE DAY. (**) EXCEPT DURING DEMUSSELING.
(***) DAILY WHEN DISCHARGING CHEMICAL CLEANING WASTES FROM DISCHARGES 001D, F, I, L, AND/OR M.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT
Drew Squyres
DATE
April 18, 1997



FACILITY I.D. 3 402003001		YEAR / MO / DAY BEGINNING 97 / 01 / 01		YEAR / MO / DAY ENDING 97 / 01 / 31		STATE CODE 06		NPDES PERMIT # CA0003751	
STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 003 pH pH UNITS GRAB MONTHLY	EFFLUENT 004 pH pH UNITS GRAB MONTHLY	EFFLUENT 001N OIL & GREASE mg/l COMPOSITE WEEKLY	EFFLUENT 001P OIL & GREASE mg/l GRAB WEEKLY (**)	EFFLUENT 003 OIL & GREASE mg/l GRAB WEEKLY (***)	EFFLUENT 001F OIL & GREASE mg/l GRAB MONTHLY	EFFLUENT 001 T CHLOR RES ug/l GRAB 2 per CYCLE	EFFLUENT 001 CHLORINE USED lbs/day RECORDED MONTHLY	
1							12	31	608
2	8.3	8.3					12	25	608
3			< 3			< 3	12	27	608
4							12	31	608
5							12	29	608
6							12	35	674
7							12	29	620
8							12	25	620
9			< 3				12	26	626
10							12	27	638
11							12	32	638
12							12	34	638
13							12	47	607
14							12	57	556
15			< 3				12	47	516
16							6	41	258
17							12	48	533
18							12	44	550
19							12	43	550
20							12	38	550
21			< 3				12	40	550
22							12	37	550
23							11	40	550
24							12	40	550
25							12	36	550
26							12	32	550
27			< 3				12	35	573
28							12	36	596
29							12	37	596
30							12	35	596
31							12	43	607
MONTHLY AVG	8.3	8.3	< 3	No	No	< 3	36	577	
MONTHLY HIGH	8.3	8.3	< 3	Discharge	Discharge	< 3	57	674	
MONTHLY LOW	8.3	8.3	< 3			< 3	25	258	
TIMES EXCEEDED	NO LIMIT	NO LIMIT	MO AVG 15 = 0	MO AVG 15 = 0	MO AVG 15 = 0	MO AVG 15 = 0	I MAX 200 = 0	NO LIMIT	
TIMES EXCEEDED			D MAX 20 = 0	D MAX 20 = 0	D MAX 20 = 0	D MAX 20 = 0			
TIMES EXCEEDED									

REMARKS: (*) NUMBER OF SAMPLES TAKEN DURING THE DAY.
(**) WHEN 001N IS DISCHARGING TO 001P. (***) WHEN 001P IS DISCHARGING TO 003.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT
Drew Squipes
DATE
April 18, 1997



CALIFORNIA REGIONAL WATER QUALITY
 CONTROL BOARD
 CENTRAL COAST REGION
 81 HIGUERA
 SAN LUIS OBISPO, CA 93401

DISCHARGE SELF MONITORING REPORT

PACIFIC GAS AND ELECTRIC CO.
 DIABLO CANYON NUCLEAR POWER PLANT
 PO BOX 56
 AVILA BEACH, CALIF 93424

FACILITY I.D. 3 402003001 YEAR / MO / DAY BEGINNING 97 / 01 / 01 YEAR / MO / DAY ENDING 97 / 01 / 31 STATE CODE 06 NPDES PERMIT # CA0003751

STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFF 001N=>003 TOTL COLIFORM MPN/100ml GRAB 4 TIMES/WEEK	EFF 001N=>003 FECAL COLIFORM MPN/100ml GRAB 4 TIMES/WEEK	EFFLUENT 001D SUSPENDED SOLIDS			EFFLUENT 001F SUSPENDED SOLIDS		
			mg/l 1st FLTR	mg/l 2nd FLTR GRAB MONTHLY	mg/l NET	mg/l 1st FLTR	mg/l 2nd FLTR GRAB MONTHLY	mg/l NET
1								
2								
3								
4						4	1	3
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21			3	< 1	2			
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
MONTHLY AVG	No	No			2			3
MONTHLY HIGH	Discharge	Discharge			2			3
MONTHLY LOW					2			3
TIMES EXCEEDED	80% SMPLS>1K MEAN>200 =				MO AVG 30 = 0		MO AVG 30 = 0	
TIMES EXCEEDED	90 % SMPLS>400				D MAX 10 = 0		D MAX 100 = 0	
TIMES EXCEEDED	I MAX >10K							

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER
 GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT DATE
Drew Squires April 18, 1997



FACILITY I.D.
3 402003001

YEAR / MO / DAY
BEGINNING 97 / 01 / 01

YEAR / MO / DAY
ENDING 97 / 01 / 31

STATE CODE
06

NPDES PERMIT #
CA0003751

STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 001G SUSPENDED SOLIDS			EFFLUENT 001H SUSPENDED SOLIDS				
	mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET	mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET		
1								
2	< 1	< 1	< 1	2	3	< 1		
3								
4								
5								
6								
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25				2	3	< 1		
26								
27								
28								
29								
30								
31								
MONTHLY AVG		< 1		< 1				
MONTHLY HIGH		< 1		< 1				
MONTHLY LOW		< 1		< 1				
TIMES EXCEEDED		MO AVG 30 = 0		MO AVG 30 = 0				
TIMES EXCEEDED		D MAX 100 = 0		D MAX 100 = 0				
TIMES EXCEEDED								

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT	DATE
<i>Drew Squyres</i>	<i>April 18, 1997</i>



FACILITY I.D.
3 402003001

YEAR / MO / DAY
BEGINNING 97 / 01 / 01

YEAR / MO / DAY
ENDING 97 / 01 / 31

STATE CODE
06

NPDES PERMIT #
CA0003751

STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 001I SUSPENDED SOLIDS			EFFLUENT 001J SUSPENDED SOLIDS			
	mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET	mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET	
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
MONTHLY AVG	No			No			
MONTHLY HIGH	Discharge			Discharge			
MONTHLY LOW							
TIMES EXCEEDED	MO AVG 30 = 0			MO AVG 30 = 0			
TIMES EXCEEDED	MAX 100 = 0			MAX 100 = 0			
TIMES EXCEEDED							

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT	DATE
<i>Drew Squyres</i>	<i>April 18, 1997</i>



STATION I.D. 3 402003001	YEAR / MO / DAY BEGINNING 97 / 01 / 01	YEAR / MO / DAY ENDING 97 / 01 / 31	STATE CODE 06	NPDES PERMIT # CA0003751
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STATION ANALYSIS UNITS SAMPL TYPE FREQ.	EFFLUENT 001K SUSPENDED SOLIDS			EFFLUENT 001L SUSPENDED SOLIDS		
	mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET	mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET
1						
2						
3				< 1	< 1	< 1
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						

MONTHLY AVG	No	< 1
MONTHLY HIGH	Discharge	< 1
MONTHLY LOW		< 1

TIMES EXCEEDED	MO AVG 30 = 0	MO AVG 30 = 0
TIMES EXCEEDED	D MAX 100 = 0	D MAX 100 = 0
TIMES EXCEEDED		

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT	DATE
<i>Drew Squires</i>	<i>April 18, 1997</i>



FACILITY I.D. 3 402003001 YEAR / MO / DAY BEGINNING 97 / 01 / 01 YEAR / MO / DAY ENDING 97 / 01 / 31 STATE CODE 06 NPDES PERMIT # CA0003751

STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 001M SUSPENDED SOLIDS			EFFLUENT 001N SUSPENDED SLDS mg/1 COMPOSITE WEEKLY	EFFLUENT 001P SUSPENDED SOLIDS		
	mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET		mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET
1							
2	14	< 1	14		11	10	1
3				10			
4							
5							
6							
7							
8							
9				15			
10							
11							
12							
13							
14							
15	4	< 1	4	20			
16							
17							
18							
19							
20							
21				< 10			
22							
23							
24							
25							
26							
27				< 10			
28							
29							
30							
31							
MONTHLY AVG			9	13			< 1
MONTHLY HIGH			14	20			< 1
MONTHLY LOW			4	< 10			< 1
TIMES EXCEEDED			MO AVG 30 = 0	MO AVG 60 = 0			MO AVG 30 = 0
TIMES EXCEEDED			D MAX 100 = 0				D MAX 100 = 0
TIMES EXCEEDED							

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT	DATE
<i>Drew Squyres</i>	<i>April 18, 1997</i>



STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 002 SUSPENDED SOLIDS			EFFLUENT 003 SUSPENDED SOLIDS		
	mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET	mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET
1						
2	2	7	2	6	2	1
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
MONTHLY AVG			1			7
MONTHLY HIGH			2			7
MONTHLY LOW			< 1			7
TIMES EXCEEDED			MO AVG 30 = 0			MO AVG 30 = 0
TIMES EXCEEDED			D MAX 100 = 0			D MAX 100 = 0
TIMES EXCEEDED						

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT	DATE
<i>Drew Squyres</i>	<i>April 18, 1997</i>



STATION ANALYSIS UNITS SMPLE TYPE FREQ.	EFFLUENT 003 SUSPENDED SOLIDS			EFFLUENT 001N SETTLE SOLIDS ml/1 GRAB WEEKLY	EFFLUENT 001 T CHROMIUM ug/1 GRAB MONTHLY	EFFLUENT 001 COPPER ug/1 GRAB MONTHLY	EFFLUENT 001 NICKEL ug/1 GRAB MONTHLY	EFFLUENT 001 ZINC ug/1 GRAB MONTHLY	
	mg/1 1st FLTR	mg/1 2nd FLTR	mg/1 NET GRAB						
FACILITY I.D. 3402003001 YEAR / MO / DAY BEGINNING 97 / 01 / 01 YEAR / MO / DAY ENDING 97 / 01 / 31 STATE CODE 06 NPDES PERMIT # CA0003751									
1									
2					< 5	< 3	< 3	< 3	
3				< 0.1					
4									
5									
6									
7									
8									
9				< 0.1					
10									
11									
12									
13									
14									
15				< 0.1					
16									
17									
18									
19									
20									
21				< 0.1					
22									
23									
24									
25									
26									
27				< 0.1					
28									
29									
30									
31									
MONTHLY AVG	No			< 0.1	< 5	< 3	< 3	< 3	
MONTHLY HIGH	Discharge			< 0.1	< 5	< 3	< 3	< 3	
MONTHLY LOW				< 0.1	< 5	< 3	< 3	< 3	
TIMES EXCEEDED	MO AVG 30 = 0			MO AVG 1.0 = 0	6M-MEAN 10 = 0	6M-MEAN 10 = 0	6M-MEAN 30 = 0	6M-MEAN 70 = 0	
TIMES EXCEEDED	D MAX 100 = 0			D MAX 3.0 = 0	D MAX 40 = 0	D MAX 50 = 0	D MAX 100 = 0	D MAX 380 = 0	
TIMES EXCEEDED					I MAX 100 = 0	I MAX 140 = 0	I MAX 260 = 0	I MAX 990 = 0	

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT	DATE
<i>Drew Squyres</i>	<i>April 18, 1997</i>



FACILITY I.D. 3402003001	YEAR / MO / DAY BEGINNING 97 / 01 / 01		YEAR / MO / DAY ENDING 97 / 01 / 31		STATE CODE 06	NPDES PERMIT # CA0003751		
STATION ANALYSIS UNITS SMPL TYPE FREQ.	INFLUENT T CHROMIUM ug/l GRAB JA/AP/JUL/OCT	INFLUENT COPPER ug/l GRAB JA/AP/JUL/OCT	INFLUENT NICKEL ug/l GRAB JA/AP/JUL/OCT	INFLUENT AMMONIA (N) ug/l GRAB JA/AP/JUL/OCT	EFFLUENT 001 AMMONIA (N) ug/l GRAB JA/AP/JUL/OCT	EFFLUENT 001D OIL & GREASE mg/l GRAB JA/AP/JUL/OCT	EFFLUENT 001G OIL & GREASE mg/l GRAB JA/AP/JUL/OCT	EFFLUENT 001H OIL & GREASE mg/l GRAB JA/AP/JUL/OCT
1								
2	< 5	< 3	< 3	83	135		< 3	< 3
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21						4		
22								
23								
24								
25								< 3
26								
27								
28								
29								
30								
31								
MONTHLY AVG	< 5	< 3	< 3	83	135	4	< 3	< 3
MONTHLY HIGH	< 5	< 3	< 3	83	135	4	< 3	< 3
MONTHLY LOW	< 5	< 3	< 3	83	135	4	< 3	< 3
TIMES EXCEEDED	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	6M-MEAN 3060 = 0	MO AVG 15 = 0	MO AVG 15 = 0	MO AVG 15 = 0
TIMES EXCEEDED					D MAX 12240 = 0	D MAX 20 = 0	D MAX 20 = 0	D MAX 20 = 0
TIMES EXCEEDED					I MAX 30600 = 0			

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER

GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT	DATE
<i>Drew Squires</i>	<i>April 18, 1997</i>



FACILITY I.D.
3402003001

YEAR / MO / DAY
BEGINNING 97 / 01 / 01

YEAR / MO / DAY
ENDING 97 / 01 / 31

STATE CODE
06

NPDES PERMIT #
CA0003751

STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 001I OIL & GREASE mg/1 GRAB JA/AP/JUL/OCT	EFFLUENT 001J OIL & GREASE mg/1 GRAB JA/AP/JUL/OCT	EFFLUENT 001K OIL & GREASE mg/1 GRAB JA/AP/JUL/OCT	EFFLUENT 001L OIL & GREASE mg/1 GRAB JA/AP/JUL/OCT	EFFLUENT 001M OIL & GREASE mg/1 GRAB JA/AP/JUL/OCT	EFFLUENT 001P OIL & GREASE mg/1 GRAB JA/AP/JUL/OCT	EFFLUENT 002 OIL & GREASE mg/1 GRAB JA/AP/JUL/OCT	EFFLUENT 003 OIL & GREASE mg/1 GRAB JA/AP/JUL/OCT
1								
2					< 3	< 3	2 < 3	< 3
3				2 < 3				
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16					< 3			
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
MONTHLY AVG	No Discharge	No Discharge	No Discharge	< 3	< 3	< 3	< 3	< 3
MONTHLY HIGH				< 3	< 3	< 3	< 3	< 3
MONTHLY LOW				< 3	< 3	< 3	< 3	< 3
TIMES EXCEEDED	MO AVG 15 = 0	MO AVG 15 = 0	MO AVG 15 = 0					
TIMES EXCEEDED	D MAX 20 = 0	D MAX 20 = 0	D MAX 20 = 0					
TIMES EXCEEDED								

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT	DATE
<i>Drew Squyres</i>	<i>April 18, 1997</i>



FACILITY I.D.
3 402003001

YEAR / MO / DAY
BEGINNING 97 / 01 / 01

YEAR / MO / DAY
ENDING 97 / 01 / 31

STATE CODE
06

NPDES PERMIT #
CA0003751

STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 004 OIL & GREASE mg/l GRAB JA/AP/JUL/OCT	EFFLUENT 001 TOX CONCEN TU GRAB JA/AP/JUL/OCT	EFFLUENT 001D CADMIUM ug/l QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001H CADMIUM ug/l QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001L CADMIUM ug/l QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001F CADMIUM ug/l 1 WEEK COMP JA/AP/JUL/OCT	
1							
2	< 3						
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13		** 0.31	< 5	2 < 1	2 < 1	< 1	
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
MONTHLY AVG	< 3	0.31	< 5	< 1	< 1	< 1	
MONTHLY HIGH	< 3	0.31	< 5	< 1	< 1	< 1	
MONTHLY LOW	< 3	0.31	< 5	< 1	< 1	< 1	
TIMES EXCEEDED	MO AVG 15 = 0	6M-MEAN 0.26	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	
TIMES EXCEEDED	D MAX 20 = 0	=0					
TIMES EXCEEDED							

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.
** 6-MONTH MEDIAN=0.16; REFER TO REPORT OVERVIEW SECTION FOR DETAILS.

PRINCIPAL EXECUTIVE OFFICER

GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT	DATE
<i>Drew Squyres</i>	<i>April 18, 1997</i>



FACILITY I.D. 3402003001	YEAR / MO / DAY BEGINNING 97 / 01 / 01		YEAR / MO / DAY ENDING 97 / 01 / 31		STATE CODE 06	NPDES PERMIT # CA0003751			
STATION ANALYSIS UNITS SAMPL TYPE FREQ.	EFFLUENT 001D CHROMIUM ug/1 QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001H T CHROMIUM ug/1 QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001L T CHROMIUM ug/1 QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001F T CHROMIUM ug/1 1 WEEK COMP JA/AP/JUL/OCT	EFFLUENT 001D COPPER ug/1 QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001H COPPER ug/1 QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001L COPPER ug/1 QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001F COPPER ug/1 1 WEEK COMP JA/AP/JUL/OCT	
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13	< 10	2 21	2 < 4	< 4	< 10	2 86	2 < 2	32	
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
MONTHLY AVG	< 10	21	< 4	< 4	< 10	86	< 2	32	
MONTHLY HIGH	< 10	22	< 4	< 4	< 10	96	< 2	32	
MONTHLY LOW	< 10	19	< 4	< 4	< 10	76	< 2	32	
TIMES EXCEEDED	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	
TIMES EXCEEDED									
TIMES EXCEEDED									

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT	DATE
<i>Drew Squyres</i>	<i>April 18, 1997</i>



FACILITY I.D. 3 402003001 YEAR / MO / DAY BEGINNING 97 / 01 / 01 YEAR / MO / DAY ENDING 97 / 01 / 31 STATE CODE 06 NPDES PERMIT # CA0003751

STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 001D LEAD ug/1 QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001H LEAD ug/1 QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001L LEAD ug/1 QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001F LEAD ug/1 1 WEEK COMP JA/AP/JUL/OCT	EFFLUENT 001D MERCURY ug/1 QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001H MERCURY ug/1 QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001L MERCURY ug/1 QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001F MERCURY ug/1 1 WEEK COMP JA/AP/JUL/OCT
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13	< 5	2 240	2 5	40	< 1	2 < 1	2 < 1	< 1
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
MONTHLY AVG	< 5	240	5	40	< 1	< 1	< 1	< 1
MONTHLY HIGH	< 5	247	5	40	< 1	< 1	< 1	< 1
MONTHLY LOW	< 5	232	5	40	< 1	< 1	< 1	< 1
TIMES EXCEEDED	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT
TIMES EXCEEDED								
TIMES EXCEEDED								

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER
 GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT DATE
Drew Squyres April 18, 1997



FACILITY I.D.
3 402003001

YEAR / MO / DAY
BEGINNING 97 / 01 / 01

YEAR / MO / DAY
ENDING 97 / 01 / 31

STATE CODE
06

NPDES PERMIT #
CA0003751

STATION ANALYSIS UNITS SMPLE TYPE FREQ.	EFFLUENT 001D NICKEL ug/1 QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001H NICKEL ug/1 QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001L NICKEL ug/1 QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001F NICKEL ug/1 1 WEEK COMP JA/AP/JUL/OCT	EFFLUENT 001D SILVER ug/1 QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001H SILVER ug/1 QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001L SILVER ug/1 QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001F SILVER ug/1 1 WEEK COMP JA/AP/JUL/OCT
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13	< 10	2 13	2 < 8	< 8	< 10	2 18	2 < 1	12
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
MONTHLY AVG	< 10	13	< 8	< 8	< 10	18	< 1	12
MONTHLY HIGH	< 10	18	< 8	< 8	< 10	20	< 1	12
MONTHLY LOW	< 10	< 8	< 8	< 8	< 10	16	< 1	12
TIMES EXCEEDED	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT
TIMES EXCEEDED								
TIMES EXCEEDED								

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER

GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT

Drew Squyres

DATE

April 18, 1997



CALIFORNIA REGIONAL WATER QUALITY
CONTROL BOARD
CENTRAL COAST REGION
81 HIGUERA
SAN LUIS OBISPO, CA 93401

DISCHARGE SELF MONITORING REPORT

PACIFIC GAS AND ELECTRIC CO.
DIABLO CANYON NUCLEAR POWER PLANT
PO BOX 56
AVILA BEACH, CALIF 93424

PAGE: (Q) 7

FACILITY I.D. 3 402003001 YEAR / MO / DAY BEGINNING 97 / 01 / 01 YEAR / MO / DAY ENDING 97 / 01 / 31 STATE CODE 06 NPDES PERMIT # CA0003751

STATION ANALYSIS UNITS SMPLE TYPE FREQ.	EFFLUENT 001D ZINC ug/l QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001H ZINC ug/l QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001L ZINC ug/l QTRLY COMP JA/AP/JUL/OCT	EFFLUENT 001F ZINC ug/l 1 WEEK COMP JA/AP/JUL/OCT	
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13	70	2	28	2 < 1	74
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
MONTHLY AVG	70	28	< 1	74	
MONTHLY HIGH	70	28	< 1	74	
MONTHLY LOW	70	28	< 1	74	
TIMES EXCEEDED	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	
TIMES EXCEEDED					
TIMES EXCEEDED					

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT	DATE
<i>Drew Squyres</i>	<i>April 18, 1997</i>



FACILITY I.D. 3 402003001 YEAR / MO / DAY BEGINNING 97 / 01 / 01 YEAR / MO / DAY ENDING 97 / 01 / 31 STATE CODE 06 NPDES PERMIT # CA0003751

STATION ANALYSIS UNITS SMPLE TYPE FREQ.	EFFLUENT 001 TITANIUM ug/1 GRAB OCTOBER	INFLUENT ARSENIC ug/1 GRAB OCTOBER	EFFLUENT 001 ARSENIC ug/1 GRAB OCTOBER	INFLUENT CADMIUM ug/1 GRAB OCTOBER	EFFLUENT 001 CADMIUM ug/1 GRAB OCTOBER	INFLUENT LEAD ug/1 GRAB OCTOBER	EFFLUENT 001 LEAD ug/1 GRAB OCTOBER	INFLUENT ZINC ug/1 GRAB OCTOBER
1								
2								9
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
MONTHLY AVG								9
MONTHLY HIGH								9
MONTHLY LOW								9
TIMES EXCEEDED	No Limit	No Limit	6M - MEAN 30 = 0	No Limit	6M-MEAN 10 = 0	No Limit	6M-MEAN 10 = 0	No Limit
TIMES EXCEEDED			D MAX 150 = 0		D MAX 20 = 0		D MAX 40 = 0	
TIMES EXCEEDED			I MAX 400 = 0		I MAX 50 = 0		I MAX 100 = 0	

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.
** INFLUENT ANALYSIS PERFORMED FOR COMPARISON TO EFFLUENTS.
ALL OTHER ANNUAL ANALYSIS WILL BE PERFORMED IN OCTOBER

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT DATE
Drew Squires *April 18, 1997*



Unit: 0 NPDES
U1 DISCHARGE CHLORINEFrom: 1/01/97 0:01
Through: 1/31/97 23:59

Parameter:	0000 CHLOR INE	0400 CHLOR INE	0800 CHLOR INE	1200 CHLOR INE	1600 CHLOR INE	2000 CHLOR INE	lbs CHLORI NE INJECTE	
High Limit:	89	89	89	89	89	89		
Low Limit:	10	10	10	10	10	10		
Sample Time:	ppb	ppb	PPB	PPB	PPB	PPB	LBS	
1/01/97 0:01	42	26	27	45	26	26	248	
1/02/97 0:01	40	22	14	29	17	13	248	
1/03/97 0:01	29	18	21	36	23	23	248	
1/04/97 0:01	40	24	23	38	23	26	248	
1/05/97 0:01	41	19	19	31	24	24	248	
1/06/97 0:01	48	29	27	37	31	28	248	
1/07/97 0:01	41	23	21	16	23	24	248	
1/08/97 0:01	12	20	20	<10	23	20	248	
1/09/97 0:01	13	22	21	<10	21	21	248	
1/10/97 0:01	11	20	21	11	26	26	248	
1/11/97 0:01	16	26	26	15	28	31	248	
1/12/97 0:01	20	28	31	22	28	30	248	
1/13/97 0:01	25	29	29	32	31	28	217	
1/14/97 0:01	33	33	33	26	32	34	186	
1/15/97 0:01	30	32	30	30	33	33	186	
1/16/97 0:01	15	33				40	93	
1/17/97 0:01	34	42	42	15	37	39	209	
1/18/97 0:01	22	37	37	16	36	36	232	
1/19/97 0:01	17	36	36	13	39	35	232	
1/20/97 0:01	<10	31	31	<10	30	30	232	
1/21/97 0:01	12	34	27	29	35	32	232	
1/22/97 0:01	<10	35	13	17	26	32	232	
1/23/97 0:01	13	32	32	18	53	38	232	
1/24/97 0:01	26	35	38	<10	22	20	232	
1/25/97 0:01	<10	22	22	<10	26	22	232	
1/26/97 0:01	<10	22	22	10	26	26	232	

4/17/97 11:34

Requested by Clint Gans

Page: 1



Unit: 0 NPDES
U1 DISCHARGE CHLORINE

From: 1/01/97 0:01
Through: 1/31/97 23:59

Parameter:	0000 CHLOR	0400 CHLOR	0800 CHLOR	1200 CHLOR	1600 CHLOR	2000 CHLOR	lbs CHLORI
	INE	INE	INE	INE	INE	INE	NE INJECTE
High Limit:	89	89	89	89	89	89	
Low Limit:	10	10	10	10	10	10	
	ppb	ppb	PPB	PPB	PPB	PPB	LBS
Sample Time:							
1/27/97 0:01	22	26	26	18	32	32	240
1/28/97 0:01	38	32	26	<10	29	32	248
1/29/97 0:01	18	32	35	18	32	32	248
1/30/97 0:01	32	32	24	10	26	26	248
1/31/97 0:01	14	32	32	35	38	38	253



Unit: 0 NPDES
U2 DISCHARGE CHLORINE

From: 1/01/97 0:01
Through: 1/31/97 23:59

Parameter:	0100 CHLOR INE	0500 CHLOR INE	0900 CHLOR INE	1300 CHLOR INE	1700 CHLOR INE	2100 CHLOR INE	LBS OF CHL ORINE
High Limit:	89	89	89	89	89	89	
Low Limit:	0	0	0	0	0	0	
Sample Time:	PPB	PPB	PPB	PPB	PPB	PPB	LBS

1/01/97 1:00	32	33	30	30	30	28	360
1/02/97 1:00	27	25	25	24	29	29	360
1/03/97 1:00	29	29	27	30	27	33	360
1/04/97 1:00	33	33	37	32	34	32	360
1/05/97 1:00	32	30	30	32	32	32	360
1/06/97 1:00	37	39	35	34	38	40	364
1/07/97 1:00	32	34	32	30	37	30	372
1/08/97 1:00	32	32	32	32	35	35	372
1/09/97 1:00	37	33	34	32	38	34	378
1/10/97 1:00	34	32	34	35	37	40	390
1/11/97 1:00	37	40	40	36	43	40	390
1/12/97 1:00	40	38	45	42	40	42	390
1/13/97 1:00	44	44	47	75	89	94	390
1/14/97 1:00	89	84	94	87	73	69	370
1/15/97 1:00	69	66	69	62	56	54	330
1/16/97 1:00	51	54				55	165
1/17/97 1:00	59	62	62	55	63	63	324
1/18/97 1:00	57	57	52	60	59	55	318
1/19/97 1:00	55	55	52	59	67	54	318
1/20/97 1:00	57	54	51	51	50	52	318
1/21/97 1:00	55	59	50	50	50	50	318
1/22/97 1:00	55	50	55	50	50	50	318
1/23/97 1:00	50	46	46	46		66	318
1/24/97 1:00	60	55	50	55	55	50	318
1/25/97 1:00	55	55	55	50	50	50	318
1/26/97 1:00	50	50	50	42	38	38	318



Unit: 0 NPDES

From: 1/01/97 0:01

U2 DISCHARGE CHLORINE

Through: 1/31/97 23:59

Parameter:	0100 CHLOR INE	0500 CHLOR INE	0900 CHLOR INE	1300 CHLOR INE	1700 CHLOR INE	2100 CHLOR INE	LBS OF CHL ORINE
High Limit:	89	89	89	89	89	89	
Low Limit:	0	0	0	0	0	0	
Sample Time:	PPB	PPB	PPB	PPB	PPB	PPB	LBS
1/27/97 1:00	42	42	46	46	46	42	333
* 1/28/97 1:00	42	46	46	46	42	42	348
1/29/97 1:00	42	46	46	50	46	50	348
1/30/97 1:00	42	46	46	42	46	50	348
* 1/31/97 1:00	44	50	52	55	60	60	354

Notes samples that have not been reviewed by C&RP Supervision

4/17/97 11:35	Requested by Clint Gans	Page: 2
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APPENDIX 3

DIABLO CANYON POWER PLANT

Influent and Effluent Monitoring

February 1997



CALIFORNIA REGIONAL WATER QUALITY
CONTROL BOARD
CENTRAL COAST REGION
81 HIGUERA
SAN LUIS OBISPO, CA 93401

DISCHARGE SELF MONITORING REPORT

PACIFIC GAS AND ELECTRIC CO.
DIABLO CANYON NUCLEAR POWER PLANT
PO BOX 56
AVILA BEACH, CALIF 93424

PAGE: (M) 1

FACILITY I.D. 3 402003001
YEAR / MO / DAY BEGINNING 97 / 02 / 01
YEAR / MO / DAY ENDING 97 / 02 / 28
STATE CODE 06
NPDES PERMIT # CA0003751

STATION ANALYSIS UNITS SMPL TYPE FREQ.	INFLUENT TEMPERATURE DEGREES F METERED CONTINUOUS	EFFLUENT 001 TEMPERATURE DEGREES F METERED CONTINUOUS	DELTA TEMP TEMPERATURE DEGREES F METERED CONTINUOUS	EFFLUENT 001 FLOW MGD RECORDED DAILY	INFLUENT pH PH UNITS GRAB MONTHLY	EFFLUENT 001 pH PH UNITS GRAB MONTHLY (**)	EFFLUENT 001P pH PH UNITS GRAB MONTHLY	EFFLUENT 002 pH PH UNITS GRAB MONTHLY
1	55.1	71.8	16.7	2472				
2	55.1	70.4	15.3	2561				
3	54.8	73.2	18.4	2559				
4	55.0	73.8	18.8	2563				
5	53.9	72.7	18.8	2559				
6	53.5	72.1	18.6	2561				
7	54.4	73.2	18.8	2563				
8	54.3	71.5	17.2	2563				
9	54.2	71.0	16.8	2559				
10	55.0	73.4	18.4	2548				
11	54.4	73.2	18.8	2559	8.0	7.9	7.7	2 8.0
12	53.1	71.9	18.8	2559				
13	52.6	71.4	18.8	2561				
14	53.9	72.6	18.7	2563				
15	53.9	72.8	18.9	2472				
16	53.8	72.3	18.5	2564				
17	53.7	72.5	18.8	2566				
18	52.4	71.2	18.8	2559				
19	52.7	71.6	18.9	2559				
20	51.6	70.5	18.9	2566				
21	51.4	70.2	18.8	2472				
22	51.3	70.2	18.9	2563				
23	50.9	69.5	18.6	2559				
24	51.2	70.0	18.8	2566				
25	52.0	70.8	18.8	2472				
26	51.8	70.7	18.9	2564				
27	51.2	70.1	18.9	2561				
28	49.9	68.8	18.9	2561				
29								
30								
31								
MONTHLY AVG	53.1	71.6	18.4	2548	8.0	7.9	7.7	8.0
MONTHLY HIGH	55.1	73.8	18.9	2566	8.0	7.9	7.7	8.0
MONTHLY LOW	49.9	68.8	15.3	2472	8.0	7.9	7.7	8.0
TIMES EXCEEDED	NO LIMIT	NO LIMIT	MAX 22 = 0	MAX 2760 = 0	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT
TIMES EXCEEDED			(**)					
TIMES EXCEEDED								

REMARKS: (*) NUMBER OF SAMPLES TAKEN DURING THE DAY. (**) EXCEPT DURING DEMUSSELING.
(***) DAILY WHEN DISCHARGING CHEMICAL CLEANING WASTES FROM DISCHARGES 001D, F, I, L, AND/OR M.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT
Drew Squyres
DATE
April 18, 1997



STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 003 pH pH UNITS GRAB MONTHLY	EFFLUENT 004 pH pH UNITS GRAB MONTHLY	EFFLUENT 001N OIL & GREASE mg/1 COMPOSITE WEEKLY	EFFLUENT 001P OIL & GREASE mg/1 GRAB WEEKLY (**)	EFFLUENT 003 OIL & GREASE mg/1 GRAB WEEKLY (***)	EFFLUENT 001F OIL & GREASE mg/1 GRAB MONTHLY	EFFLUENT 001 T CHLOR RES ug/1 GRAB 2 per CYCLE	EFFLUENT 001 CHLORINE USED lbs/day RECORDED MONTHLY	ACILITY I.D.	YEAR / MO / DAY BEGINNING	YEAR / MO / DAY ENDING	STATE CODE	NPDES PERMIT #	
									3 402003001	97 / 02 / 01	97 / 02 / 28	06	CA0003751	
1							12	50						618
2							12	50						618
3							12	49						604
4							7	48						335
5							12	48						594
6			< 3				12	44						584
7							12	41						564
8							12	45						564
9							12	46						564
10							12	43						564
11	8.1	8.0					12	40						555
12			< 3				12	42						546
13							12	44						546
14							12	51						546
15							12	50						532
16							12	45						504
17							12	43						504
18						< 3	12	48						491
19							10	58						403
20							4	43						106
21			3				12	31						395
22							12	26						434
23							12	24						434
24			< 3				12	22						434
25							12	21						434
26							12	24						438
27							12	28						450
28							12	27						456
29														
30														
31														
MONTHLY AVG	8.1	8.0	< 3	No	No	< 3	40	493						
MONTHLY HIGH	8.1	8.0	3	Discharge	Discharge	< 3	58	618						
MONTHLY LOW	8.1	8.0	< 3			< 3	21	106						
TIMES EXCEEDED	NO LIMIT	NO LIMIT	MO AVG 15 = 0	MO AVG 15 = 0	MO AVG 15 = 0	MO AVG 15 = 0	1 MAX 200 = 0	NO LIMIT						
TIMES EXCEEDED			D MAX 20 = 0	D MAX 20 = 0	D MAX 20 = 0	D MAX 20 = 0								
TIMES EXCEEDED														

REMARKS: (*) NUMBER OF SAMPLES TAKEN DURING THE DAY.
(**) WHEN 001N IS DISCHARGING TO 001P. (***) WHEN 001P IS DISCHARGING TO 003.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT
Drew Squyres
DATE
April 18, 1997



CALIFORNIA REGIONAL WATER QUALITY
CONTROL BOARD
CENTRAL COAST REGION
81 HIGUERA
SAN LUIS OBISPO, CA 93401

DISCHARGE SELF MONITORING REPORT

PACIFIC GAS AND ELECTRIC CO.
DIABLO CANYON NUCLEAR POWER PLANT
PO BOX 56
AVILA BEACH, CALIF 93424

PAGE: (M) 3

FACILITY I.D. 3 402003001 YEAR / MO / DAY BEGINNING 97 / 02 / 01 YEAR / MO / DAY ENDING 97 / 02 / 28 STATE CODE 06 NPDES PERMIT # CA0003751

STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFF 001N=>003		EFFLUENT 001D			EFFLUENT 001F		
	TOTL COLIFORM MPN/100ml GRAB 4 TIMES/WEEK	FECAL COLIFORM MPN/100ml GRAB 4 TIMES/WEEK	mg/1 1st FLTR	SUSPENDE SOLIDS mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET	mg/1 1st FLTR	SUSPENDE SOLIDS mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET

1								
2								
3								
4								
5								
6								
7								
8								
9								
10			4	2	2			
11								
12								
13								
14								
15								
16								
17								
18						6	2	4
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								

MONTHLY AVG	No	No			2			4
MONTHLY HIGH	Discharge	Discharge			2			4
MONTHLY LOW					2			4

TIMES EXCEEDED	80% SMPLS>1K	MEAN>200 =			MO AVG 30 = 0			MO AVG 30 = 0
TIMES EXCEEDED		90 % SMPLS>400			D MAX 100 = 0			D MAX 100 = 0
TIMES EXCEEDED	1 MAX >10K							

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT	DATE
<i>Drew Squires</i>	<i>April 18, 1997</i>



CALIFORNIA REGIONAL WATER QUALITY
CONTROL BOARD
CENTRAL COAST REGION
81 HIGUERA
SAN LUIS OBISPO, CA 93401

DISCHARGE SELF MONITORING REPORT

PACIFIC GAS AND ELECTRIC CO.
DIABLO CANYON NUCLEAR POWER PLANT
PO BOX 56
AVILA BEACH, CALIF 93424

PAGE: (M) 4

FACILITY I.D. 3 402003001 YEAR / MO / DAY BEGINNING 97 / 02 / 01 YEAR / MO / DAY ENDING 97 / 02 / 28 STATE CODE 06 NPDES PERMIT # CA0003751

STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 001G SUSPENDED SOLIDS			EFFLUENT 001H SUSPENDED SOLIDS		
	mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET	mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET
1						
2						
3						
4						
5				3	2	1
6						
7						
8						
9						
10						
11	< 1	< 1	< 1			
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
MONTHLY AVG		< 1				1
MONTHLY HIGH		< 1				1
MONTHLY LOW		< 1				1
TIMES EXCEEDED		MO AVG 30 = 0		MO AVG 30 = 0		
TIMES EXCEEDED		D MAX 100 = 0		D MAX 100 = 0		
TIMES EXCEEDED						

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT	DATE
<i>Drew Squyres</i>	<i>April 18, 1997</i>



CALIFORNIA REGIONAL WATER QUALITY
CONTROL BOARD
CENTRAL COAST REGION
81 HIGUERA
SAN LUIS OBISPO, CA 93401

DISCHARGE SELF MONITORING REPORT

PACIFIC GAS AND ELECTRIC CO.
DIABLO CANYON NUCLEAR POWER PLANT
PO BOX 56
AVILA BEACH, CALIF 93424

PAGE: (M) 5

FACILITY I.D. 3 402003001	YEAR / MO / DAY BEGINNING 97 / 02 / 01	YEAR / MO / DAY ENDING 97 / 02 / 28	STATE CODE 06	NPDES PERMIT # CA0003751
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STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 001I SUSPENDED SOLIDS			EFFLUENT 001J SUSPENDED SOLIDS		
	mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET	mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						

MONTHLY AVG	No Discharge	No Discharge
MONTHLY HIGH		
MONTHLY LOW		

TIMES EXCEEDED	MO AVG 30 = 0	MO AVG 30 = 0
TIMES EXCEEDED	MAX 100 = 0	MAX 100 = 0
TIMES EXCEEDED		

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT	DATE
<i>Drew Squipes</i>	<i>April 18, 1997</i>



CALIFORNIA REGIONAL WATER QUALITY
CONTROL BOARD
CENTRAL COAST REGION
81 HIGUERA
SAN LUIS OBISPO, CA 93401

DISCHARGE SELF MONITORING REPORT

PACIFIC GAS AND ELECTRIC CO.
DIABLO CANYON NUCLEAR POWER PLANT
PO BOX 56
AVILA BEACH, CALIF 93424

PAGE: (M) 6

STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 001K SUSPENDED SOLIDS			EFFLUENT 001L SUSPENDED SOLIDS			STATE CODE	NPDES PERMIT #	
	mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET	mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET			
FACILITY I.D. 3 402003001		YEAR / MO / DAY BEGINNING 97 / 02 / 01		YEAR / MO / DAY ENDING 97 / 02 / 28		06		CA0003751	
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18				< 1	< 1	< 1			
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
MONTHLY AVG	No			< 1					
MONTHLY HIGH	Discharge			< 1					
MONTHLY LOW				< 1					
TIMES EXCEEDED	MO AVG 30 = 0			MO AVG 30 = 0					
TIMES EXCEEDED	D MAX 100 = 0			D MAX 100 = 0					
TIMES EXCEEDED									

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT	DATE
<i>Drew Squipes</i>	<i>April 18, 1997</i>



STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 001M SUSPENDED SOLIDS			EFFLUENT 001N SUSPENDED SLOS mg/1 COMPOSITE WEEKLY	EFFLUENT 001P SUSPENDED SOLIDS		
	mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET		mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET
1							
2							
3							
4							
5							
6				20			
7							
8							
9							
10							
11					14	17	< 1
12				10			
13							
14							
15							
16							
17							
18							
19							
20							
21				10			
22							
23							
24				< 10			
25							
26	5	< 1	5				
27							
28							
29							
30							
31							
MONTHLY AVG			5	13			< 1
MONTHLY HIGH			5	20			< 1
MONTHLY LOW			5	< 10			< 1
TIMES EXCEEDED			MO AVG 30 = 0	MO AVG 60 = 0			MO AVG 30 = 0
TIMES EXCEEDED			D MAX 100 = 0				D MAX 100 = 0
TIMES EXCEEDED							

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT
Drew Squires
DATE
April 18, 1997



STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 002 SUSPENDED SOLIDS			EFFLUENT 003 SUSPENDED SOLIDS		
	mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET	mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11	12	9	3	13	10	3
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
MONTHLY AVG			3			3
MONTHLY HIGH			3			3
MONTHLY LOW			3			3
TIMES EXCEEDED			MO AVG 30 = 0			MO AVG 30 = 0
TIMES EXCEEDED			D MAX 100 = 0			D MAX 100 = 0
TIMES EXCEEDED						

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER
 GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT	DATE
<i>Drew Squyres</i>	<i>April 18, 1997</i>



STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 003 SUSPENDED SOLIDS			EFFLUENT 001N SETTL SOLIDS m/l GRAB WEEKLY	EFFLUENT 001 T CHROMIUM ug/l GRAB MONTHLY	EFFLUENT 001 COPPER ug/l GRAB MONTHLY	EFFLUENT 001 NICKEL ug/l GRAB MONTHLY	EFFLUENT 001 ZINC ug/l GRAB MONTHLY	
	mg/l 1st FLTR	mg/l 2nd FLTR	mg/l NET GRAB						
FACILITY I.D. 3 402003001 YEAR / MO / DAY BEGINNING 97 / 02 / 01 YEAR / MO / DAY ENDING 97 / 02 / 28 STATE CODE 06 NPDES PERMIT # CA0003751									
1									
2									
3									
4									
5									
6				< 0.1					
7									
8									
9									
10									
11					< 5	< 3	4	< 3	
12				< 0.1					
13									
14									
15									
16									
17									
18									
19									
20									
21				< 0.1					
22									
23									
24				< 0.1					
25									
26									
27									
28									
29									
30									
31									
MONTHLY AVG	No			< 0.1	< 5	< 3	4	< 3	
MONTHLY HIGH	Discharge			< 0.1	< 5	< 3	4	< 3	
MONTHLY LOW				< 0.1	< 5	< 3	4	< 3	
TIMES EXCEEDED	MO AVG 30 = 0			MO AVG 1.0 = 0	6M-MEAN 10 = 0	6M-MEAN 10 = 0	6M-MEAN 30 = 0	6M-MEAN 70 = 0	
TIMES EXCEEDED	D MAX 100 = 0			D MAX 3.0 = 0	D MAX 40 = 0	D MAX 50 = 0	D MAX 100 = 0	D MAX 380 = 0	
TIMES EXCEEDED					I MAX 100 = 0	I MAX 140 = 0	I MAX 260 = 0	I MAX 990 = 0	

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT	DATE
<i>Drew Squires</i>	<i>April 18, 1997</i>



FACILITY I.D.	YEAR / MO / DAY		YEAR / MO / DAY		STATE CODE	NPDES PERMIT #		
3 402003001	BEGINNING	97 / 02 / 01	ENDING	97 / 02 / 28	06	CA0003751		
STATION ANALYSIS UNITS SMPLE TYPE FREQ.	INFLUENT T CHROMIUM ug/1 GRAB JA/AP/JUL/OCT	INFLUENT COPPER ug/1 GRAB JA/AP/JUL/OCT	INFLUENT NICKEL ug/1 GRAB JA/AP/JUL/OCT	INFLUENT AMMONIA (N) ug/1 GRAB JA/AP/JUL/OCT	EFFLUENT 001 AMMONIA (N) ug/1 GRAB JA/AP/JUL/OCT	EFFLUENT 001D OIL & GREASE mg/1 GRAB JA/AP/JUL/OCT	EFFLUENT 001G OIL & GREASE mg/1 GRAB JA/AP/JUL/OCT	EFFLUENT 001H OIL & GREASE mg/1 GRAB JA/AP/JUL/OCT
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11	< 5	< 3	4			< 3		
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
MONTHLY AVG	< 5	< 3	4			< 3		
MONTHLY HIGH	< 5	< 3	4			< 3		
MONTHLY LOW	< 5	< 3	4			< 3		
TIMES EXCEEDED	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	6M-MEAN 3060 = 0	MO AVG 15 = 0	MO AVG 15 = 0	MO AVG 15 = 0
TIMES EXCEEDED					D MAX 12240 = 0	D MAX 20 = 0	D MAX 20 = 0	D MAX 20 = 0
TIMES EXCEEDED					I MAX 30600 = 0			

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT
Drew Squires
DATE
April 18, 1997



STATION ANALYSIS UNITS SMPLE TYPE FREQ.	YEAR / MO / DAY BEGINNING		YEAR / MO / DAY ENDING		STATE CODE	NPDES PERMIT #		
	. 97 / 02 / 01		. 97 / 02 / 28			06	CA0003751	
	EFFLUENT 001I OIL & GREASE mg/1 GRAB JA/AP/JUL/OCT	EFFLUENT 001J OIL & GREASE mg/1 GRAB JA/AP/JUL/OCT	EFFLUENT 001K OIL & GREASE mg/1 GRAB JA/AP/JUL/OCT	EFFLUENT 001L OIL & GREASE mg/1 GRAB JA/AP/JUL/OCT	EFFLUENT 001M OIL & GREASE mg/1 GRAB JA/AP/JUL/OCT	EFFLUENT 001P OIL & GREASE mg/1 GRAB JA/AP/JUL/OCT	EFFLUENT 002 OIL & GREASE mg/1 GRAB JA/AP/JUL/OCT	EFFLUENT 003 OIL & GREASE mg/1 GRAB JA/AP/JUL/OCT
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26					< 3			
27								
28								
29								
30								
31								
MONTHLY AVG	No Discharge	No Discharge	No Discharge		< 3			
MONTHLY HIGH					< 3			
MONTHLY LOW					< 3			
TIMES EXCEEDED	MO AVG 15 = 0	MO AVG 15 = 0	MO AVG 15 = 0					
TIMES EXCEEDED	D MAX 20 = 0	D MAX 20 = 0	D MAX 20 = 0					
TIMES EXCEEDED								

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT	DATE
<i>Drew Squyres</i>	<i>April 18, 1997</i>



FACILITY I.D. 3 402003001 YEAR / MO / DAY BEGINNING 97 / 02 / 01 YEAR / MO / DAY ENDING 97 / 02 / 28 STATE CODE 06 NPDES PERMIT # CA0003751

STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 001 TITANIUM ug/1 GRAB OCTOBER	INFLUENT ARSENIC ug/1 GRAB OCTOBER	EFFLUENT 001 ARSENIC ug/1 GRAB OCTOBER	INFLUENT CADMIUM ug/1 GRAB OCTOBER	EFFLUENT 001 CADMIUM ug/1 GRAB OCTOBER	INFLUENT LEAD ug/1 GRAB OCTOBER	EFFLUENT 001 LEAD ug/1 GRAB OCTOBER	INFLUENT ZINC ug/1 GRAB OCTOBER
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11							** <	3
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
MONTHLY AVG							<	3
MONTHLY HIGH							<	3
MONTHLY LOW							<	3
TIMES EXCEEDED	NO LIMIT	NO LIMIT	6M - MEAN 30 = 0	NO LIMIT	6M-MEAN 10 = 0	NO LIMIT	6M-MEAN 10 = 0	
TIMES EXCEEDED			D MAX 150 = 0		D MAX 20 = 0		D MAX 40 = 0	
TIMES EXCEEDED			I MAX 400 = 0		I MAX 50 = 0		I MAX 100 = 0	

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.
** INFLUENT ANALYSIS PERFORMED FOR COMPARISON TO EFFLUENTS.
ALL OTHER ANNUAL ANALYSIS WILL BE PERFORMED IN OCTOBER

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT DATE
Drew Squyres April 18, 1997



Unit: 0 NPDES
UI DISCHARGE CHLORINE

From: 2/01/97 0:01
Through: 2/28/97 23:59

Parameter:	0000 CHLOR	0400 CHLOR	0800 CHLOR	1200 CHLOR	1600 CHLOR	2000 CHLOR	lbs CHLORI
	INE	INE	INE	INE	INE	INE	NE INJECTE
High Limit:	89	89	89	89	89	89	
Low Limit:	10	10	10	10	10	10	
Sample Time:	ppb	ppb	PPB	PPB	PPB	PPB	LBS

2/01/97 0:01	42	46	38	38	33	35	258
2/02/97 0:01	35	41	39	37	36	34	258
2/03/97 0:01	36	34	34	34	32	32	252
2/04/97 0:01	32	32				29	123
2/05/97 0:01	35	32	35	32	26	29	246
2/06/97 0:01	29	26	26	32	32	32	246
2/07/97 0:01	32	26	18	26	24	26	246
2/08/97 0:01	32	24	29	26	23	26	246
2/09/97 0:01	23	26	29	46	35	35	246
2/10/97 0:01	46	35	26	32	29	32	246
2/11/97 0:01	35	32	32	32	32	29	246
2/12/97 0:01	38	32	32	46	26	32	246
2/13/97 0:01	29	29	26	46	32	32	246
2/14/97 0:01	46	35	29	35	35	32	246
2/15/97 0:01	38	38	32	27	27	29	246
2/16/97 0:01	34	26	29	32	32	32	246
2/17/97 0:01	32	35	32	35	32	32	246
2/18/97 0:01	32	32	29	32	55	26	233
2/19/97 0:01	26	50	26	29	96		188
2/20/97 0:01					10	35	38
2/21/97 0:01	38	10	38	22	46	46	170
2/22/97 0:01	26	46	50	14	73	46	188
2/23/97 0:01	26	50	32	20	46	46	188
2/24/97 0:01	20	50	46	10	38	38	188
2/25/97 0:01	<10	42	46	<10	37	45	188
2/26/97 0:01	12	45	45	31	49	45	188



Unit: 0 NPDES
U1 DISCHARGE CHLORINE

From: 2/01/97 0:01
Through: 2/28/97 23:59

Parameter:	0000 CHLOR INE	0400 CHLOR INE	0800 CHLOR INE	1200 CHLOR INE	1600 CHLOR INE	2000 CHLOR INE	lbs CHLORINE INJECTE
High Limit:	89	89	89	89	89	89	
Low Limit:	10	10	10	10	10	10	
Sample Time:	ppb	ppb	PPB	PPB	PPB	PPB	LBS
2/27/97 0:01	45	45	45	18	37	45	192
2/28/97 0:01	28	37	41	26	41	45	192



Unit: 0 NPDES
U2 DISCHARGE CHLORINE

From: 2/01/97 0:01
Through: 2/28/97 23:59

Parameter:	0100 CHLOR INE	0500 CHLOR INE	0900 CHLOR INE	1300 CHLOR INE	1700 CHLOR INE	2100 CHLOR INE	LBS OF CHL ORINE
High Limit:	89	89	89	89	89	89	
Low Limit:	0	0	0	0	0	0	
Sample Time:	PPB	PPB	PPB	PPB	PPB	PPB	LBS

2/01/97 1:00	60	60	60	66	63	60	360
2/02/97 1:00	63	67	67	57	52	66	360
2/03/97 1:00	69	73	66	62	60	60	352
2/04/97 1:00	66	60			60	60	232
2/05/97 1:00	60	66	66	60	60	73	348
2/06/97 1:00	60	60	60	60	55	55	338
2/07/97 1:00	60	60	50	55	60	60	318
2/08/97 1:00	60	66	60	66	63	63	318
2/09/97 1:00	60	63	60	55	60	55	318
2/10/97 1:00	60	55	50	46	55	55	318
2/11/97 1:00	55	50	50	38	42	50	309
2/12/97 1:00	50	50	42	50	50	50	300
2/13/97 1:00	50	50	42	50	73	73	300
2/14/97 1:00	73	66	60	60	66	73	300
2/15/97 1:00	80	66	66	66	66	59	286
2/16/97 1:00	62	62	59	55	55	60	258
2/17/97 1:00	55	55	55	50	50	50	258
2/18/97 1:00	55	55	50	60	73	73	258
2/19/97 1:00	73	73	60	73	73		215
2/20/97 1:00					60	66	68
2/21/97 1:00	66	60	<10	13	<10	<10	225
2/22/97 1:00	<10	<10	<10	<10	<10	<10	246
2/23/97 1:00	<10	<10	16	<10	<10	<10	246
2/24/97 1:00	<10	<10	<10	<10	<10	<10	246
2/25/97 1:00	<10	<10	<10	<10	<10	<10	246
2/26/97 1:00	<10	<10	<10	<10	<10	<10	246
2/27/97 1:00	<10	<10	<10	<10	<10	<10	246
2/28/97 1:00	<10	<10	<10	<10	11	<10	250



Unit: 0 NPDES

From: 2/01/97 0:01

U2 DISCHARGE CHLORINE

Through: 2/28/97 23:59

Parameter:	0100 CHLOR	0500 CHLOR	0900 CHLOR	1300 CHLOR	1700 CHLOR	2100 CHLOR	LBS OF CHL
	INE	INE	INE	INE	INE	INE	ORINE
High Limit:	89	89	89	89	89	89	
Low Limit:	0	0	0	0	0	0	
Sample Time:	PPB	PPB	PPB	PPB	PPB	PPB	LBS
2/27/97 1:00	13	17	14	17	17	20	258
2/28/97 1:00	12	17	17	20	20	22	264



APPENDIX 4

DIABLO CANYON POWER PLANT

Influent and Effluent Monitoring

March 1997



FACILITY I.D.	YEAR / MO / DAY		YEAR / MO / DAY		STATE CODE	NPDES PERMIT #		
3 402003001	BEGINNING	97 / 03 / 01	ENDING	97 / 03 / 31	06	CA0003751		
STATION ANALYSIS UNITS SMPL TYPE FREQ.	INFLUENT TEMPERATURE DEGREES F METERED CONTINUOUS	EFFLUENT 001 TEMPERATURE DEGREES F METERED CONTINUOUS	DELTA TEMP TEMPERATURE DEGREES F METERED CONTINUOUS	EFFLUENT 001 FLOW MGD RECORDED DAILY	INFLUENT pH pH UNITS GRAB MONTHLY	EFFLUENT 001 pH pH UNITS GRAB MONTHLY (***)	EFFLUENT 001P pH pH UNITS GRAB MONTHLY	EFFLUENT 002 pH pH UNITS GRAB MONTHLY
1	50.5	69.4	18.9	2566				
2	50.7	69.6	18.9	2564				
3	50.3	69.1	18.8	2557				
4	49.8	68.7	18.9	2566				
5	50.5	69.4	18.9	2561				
6	50.8	69.7	18.9	2564				
7	50.6	69.5	18.9	2566				
8	50.4	69.2	18.8	2564				
9	50.7	69.5	18.8	2472				
10	51.1	70.0	18.9	2563				
11	51.7	70.6	18.9	2568				
12	52.0	70.9	18.9	2545				
13	51.0	69.9	18.9	2560	7.9	7.9	7.6	2 7.9
14	51.6	70.5	18.9	2566				
15	51.8	70.5	18.7	2562				
16	52.6	71.3	18.7	2559				
17	53.6	72.5	18.9	2472				
18	53.4	72.2	18.8	2563				
19	53.8	72.7	18.9	2558				
20	54.2	73.0	18.8	2557				
21	55.6	74.4	18.8	2567				
22	56.1	74.9	18.8	2563				
23	55.4	74.3	18.9	2561				
24	54.7	73.6	18.9	2561				
25	55.4	74.3	18.9	2539				
26	55.2	74.0	18.8	2555				
27	54.9	73.8	18.9	2545				
28	54.0	73.0	19.0	2567				
29	54.1	69.7	15.6	2222				
30	54.3	66.9	12.6	1849				
31	53.5	66.1	12.6	1930				
MONTHLY AVG	52.7	71.1	18.4	2500	7.9	7.9	7.6	7.9
MONTHLY HIGH	56.1	74.9	19.0	2568	7.9	7.9	7.6	7.9
MONTHLY LOW	49.8	66.1	12.6	1849	7.9	7.9	7.6	7.9
TIMES EXCEEDED	NO LIMIT	NO LIMIT	MAX 22 = 0	MAX 2760 = 0	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT
TIMES EXCEEDED			(**)					
TIMES EXCEEDED								

REMARKS: (*) NUMBER OF SAMPLES TAKEN DURING THE DAY. (**) EXCEPT DURING DEMUSSELING.
(***) DAILY WHEN DISCHARGING CHEMICAL CLEANING WASTES FROM DISCHARGES 001D, F, I, L, AND/OR M.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT	DATE
<i>Drew Squyres</i>	<i>April 18, 1997</i>



FACILITY I.D.
3 402003001

YEAR / MO / DAY
BEGINNING 97 / 03 / 01

YEAR / MO / DAY
ENDING 97 / 03 / 31

STATE CODE
06

NPDES PERMIT #
CA0003751

STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 003 pH pH UNITS GRAB MONTHLY	EFFLUENT 004 pH pH UNITS GRAB MONTHLY	EFFLUENT 001N OIL & GREASE mg/1 COMPOSITE WEEKLY	EFFLUENT 001P OIL & GREASE mg/1 GRAB WEEKLY (**)	EFFLUENT 003 OIL & GREASE mg/1 GRAB WEEKLY (***)	EFFLUENT 001F OIL & GREASE mg/1 GRAB MONTHLY	EFFLUENT 001 T CHLOR RES ug/1 GRAB 2 per CYCLE	EFFLUENT 001 CHLORINE USED lbs/day RECORDED MONTHLY	
1							12	35	472
2							12	26	472
3							12	27	472
4							12	26	472
5							12	21	472
6							12	19	472
7			< 3				12	21	472
8							12	22	472
9							12	20	472
10							12	20	472
11							12	20	427
12							12	21	484
13	7.9	7.9	3			< 3	12	20	458
14							12	17	458
15							12	14	484
16							12	13	484
17							12	15	484
18							12	14	484
19			3				11	14	442
20							4	12	176
21							9	13	384
22							10	13	422
23							10	13	422
24							10	14	422
25			< 3				10	13	422
26							10	12	422
27							10	14	422
28							10	15	422
29							9	18	315
30							10	22	260
31							10	33	260
MONTHLY AVG	7.9	7.9	3	No	No	< 3	19	428	
MONTHLY HIGH	7.9	7.9	3	Discharge	Discharge	< 3	35	484	
MONTHLY LOW	7.9	7.9	< 3			< 3	12	176	
TIMES EXCEEDED	NO LIMIT	NO LIMIT	MO AVG 15 = 0	MO AVG 15 = 0	MO AVG 15 = 0	MO AVG 15 = 0	1 MAX 200 = 0	NO LIMIT	
TIMES EXCEEDED			D MAX 20 = 0	D MAX 20 = 0	D MAX 20 = 0	D MAX 20 = 0			
TIMES EXCEEDED									

REMARKS: (*) NUMBER OF SAMPLES TAKEN DURING THE DAY.
(**) WHEN 001N IS DISCHARGING TO 001P. (***) WHEN 001P IS DISCHARGING TO 003.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

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Drew Squyres
DATE
April 18, 1997



CALIFORNIA REGIONAL WATER QUALITY
CONTROL BOARD
CENTRAL COAST REGION
81 HIGUERA
SAN LUIS OBISPO, CA 93401

DISCHARGE SELF MONITORING REPORT

PACIFIC GAS AND ELECTRIC CO.
DIABLO CANYON NUCLEAR POWER PLANT
PO BOX 56
AVILA BEACH, CALIF 93424

PAGE: (M) 3

FACILITY I.D.
3 402003001

YEAR / MO / DAY
BEGINNING 97 / 03 / 01

YEAR / MO / DAY
ENDING 97 / 03 / 31

STATE CODE
06

NPDES PERMIT #
CA0003751

STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFF 001N=>003 TOTL COLIFORM MPN/100ml GRAB 4 TIMES/WEEK	EFF 001N=>003 FECAL COLIFORM MPN/100ml GRAB 4 TIMES/WEEK	EFFLUENT 001D SUSPENDED SOLIDS			EFFLUENT 001F SUSPENDED SOLIDS			
			mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET	mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET	
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11				5	2	3			
12									
13							5	< 1	
14								5	
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
MONTHLY AVG	No	No			3			5	
MONTHLY HIGH	Discharge	Discharge			3			5	
MONTHLY LOW					3			5	
TIMES EXCEEDED	80% SMPLS>1K MEAN>200 =			MO AVG 30 = 0			MO AVG 30=0		
TIMES EXCEEDED	90 % SMPLS>400			D MAX 100 = 0			D MAX 100 = 0		
TIMES EXCEEDED	1 MAX >10K								

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT	DATE
<i>Drew Squires</i>	<i>April 18, 1997</i>



CALIFORNIA REGIONAL WATER QUALITY
 CONTROL BOARD
 CENTRAL COAST REGION
 81 HIGUERA
 SAN LUIS OBISPO, CA 93401

DISCHARGE SELF MONITORING REPORT

PACIFIC GAS AND ELECTRIC CO.
 DIABLO CANYON NUCLEAR POWER PLANT
 PO BOX 56
 AVILA BEACH, CALIF 93424

PAGE: (M) 4

FACILITY I.D. 3 402003001 YEAR / MO / DAY BEGINNING .97 / 03 / 01 YEAR / MO / DAY ENDING .97 / 03 / 31 STATE CODE 06 NPDES PERMIT # CA0003751

STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 001G SUSPENDED SOLIDS			EFFLUENT 001H SUSPENDED SOLIDS		
	mg/l 1st FLTR	mg/l 2nd FLTR GRAB MONTHLY	mg/l NET	mg/l 1st FLTR	mg/l 2nd FLTR GRAB MONTHLY	mg/l NET
1						
2						
3				4	4	< 1
4						
5						
6						
7						
8						
9						
10						
11						
12						
13	< 1	< 1	< 1			
14						
15						
16						
17						
18						
19						
20				4	6	< 1
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
MONTHLY AVG			< 1			< 1
MONTHLY HIGH			< 1			< 1
MONTHLY LOW			< 1			< 1
TIMES EXCEEDED			MO AVG 30 = 0			MO AVG 30 = 0
TIMES EXCEEDED			D MAX 100 = 0			D MAX 100 = 0
TIMES EXCEEDED						

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER
 GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT	DATE
<i>Drew Squires</i>	<i>April 18, 1997</i>



CALIFORNIA REGIONAL WATER QUALITY
CONTROL BOARD
CENTRAL COAST REGION
81 HIGUERA
SAN LUIS OBISPO, CA 93401

DISCHARGE SELF MONITORING REPORT

PACIFIC GAS AND ELECTRIC CO.
DIABLO CANYON NUCLEAR POWER PLANT
PO BOX 56
AVILA BEACH, CALIF 93424

PAGE: (M) 5

FACILITY I.D. 3 402003001	YEAR / MO / DAY BEGINNING 97 / 03 / 01	YEAR / MO / DAY ENDING 97 / 03 / 31	STATE CODE 06	NPDES PERMIT # CA0003751
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STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 001I SUSPENDED SOLIDS			EFFLUENT 001J SUSPENDED SOLIDS		
	mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET	mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET

1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29				< 1	< 1	< 1
30						
31						

MONTHLY AVG	No	< 1
MONTHLY HIGH	Discharge	< 1
MONTHLY LOW		< 1

TIMES EXCEEDED	MO AVG 30 = 0	MO AVG 30 = 0
TIMES EXCEEDED	MAX 100 = 0	MAX 100 = 0
TIMES EXCEEDED		

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT	DATE
<i>Drew Squires</i>	<i>April 18, 1997</i>



CALIFORNIA REGIONAL WATER QUALITY
CONTROL BOARD
CENTRAL COAST REGION
81 HIGUERA
SAN LUIS OBISPO, CA 93401

DISCHARGE SELF MONITORING REPORT

PACIFIC GAS AND ELECTRIC CO.
DIABLO CANYON NUCLEAR POWER PLANT
PO BOX 56
AVILA BEACH, CALIF 93424

PAGE: (M) 6

FACILITY I.D. 3 402003001	YEAR / MO / DAY BEGINNING 97 / 03 / 01	YEAR / MO / DAY ENDING 97 / 03 / 31	STATE CODE 06	NPDES PERMIT # CA0003751
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STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 001K SUSPENDED SOLIDS			EFFLUENT 001L SUSPENDED SOLIDS		
	mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET	mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13				2 <	1	2 < 1
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29				<	1	< 1
30						
31						
MONTHLY AVG	No			< 1		
MONTHLY HIGH	Discharge			< 1		
MONTHLY LOW				< 1		
TIMES EXCEEDED	MO AVG 30 = 0			MO AVG 30 = 0		
TIMES EXCEEDED	D MAX 100 = 0			D MAX 100 = 0		
TIMES EXCEEDED						

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT	DATE
<i>Drew Squyres</i>	<i>April 18, 1997</i>



STATION ANALYSIS UNITS SMP TYPE FREQ.	EFFLUENT 001M SUSPENDED SOLIDS			EFFLUENT 001N SUSPENDED SLDS mg/1 COMPOSITE WEEKLY	EFFLUENT 001P SUSPENDED SOLIDS		
	mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET		mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET
1							
2							
3							
4							
5							
6							
7				20			
8							
9							
10							
11							
12							
13				20	10	13	< 1
14							
15							
16							
17							
18							
19				< 10			
20							
21							
22							
23							
24							
25				< 10			
26							
27							
28							
29							
30							
31							
MONTHLY AVG			No	15			< 1
MONTHLY HIGH			Discharge	20			< 1
MONTHLY LOW				< 10			< 1
TIMES EXCEEDED			MO AVG 30 = 0	MO AVG 60 = 0			MO AVG 30 = 0
TIMES EXCEEDED			D MAX 100 = 0				D MAX 100 = 0
TIMES EXCEEDED							

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT	DATE
<i>Drew Squyres</i>	<i>April 18, 1997</i>



CALIFORNIA REGIONAL WATER QUALITY
CONTROL BOARD
CENTRAL COAST REGION
81 HIGUERA
SAN LUIS OBISPO, CA 93401

DISCHARGE SELF MONITORING REPORT

PACIFIC GAS AND ELECTRIC CO.
DIABLO CANYON NUCLEAR POWER PLANT
PO BOX 56
AVILA BEACH, CALIF 93424

PAGE: (M) 8

FACILITY I.D. 3 402003001
YEAR / MO / DAY BEGINNING 97 / 03 / 01
YEAR / MO / DAY ENDING 97 / 03 / 31
STATE CODE 06
NPDES PERMIT # CA0003751

STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 002 SUSPENDED SOLIDS			EFFLUENT 003 SUSPENDED SOLIDS		
	mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET	mg/1 1st FLTR	mg/1 2nd FLTR GRAB MONTHLY	mg/1 NET
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13	8	7	1	6	7	< 1
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
MONTHLY AVG			1			< 1
MONTHLY HIGH			1			< 1
MONTHLY LOW			1			< 1
TIMES EXCEEDED			MO AVG 30 = 0			MO AVG 30 = 0
TIMES EXCEEDED			D MAX 100 = 0			D MAX 100 = 0
TIMES EXCEEDED						

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT	DATE
<i>Drew Squires</i>	<i>April 18, 1997</i>



STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 003 SUSPENDED SOLIDS			EFFLUENT 001N SETTL SOLIDS ml/l GRAB WEEKLY	EFFLUENT 001 T CHROMIUM ug/l GRAB MONTHLY	EFFLUENT 001 COPPER ug/l GRAB MONTHLY	EFFLUENT 001 NICKEL ug/l GRAB MONTHLY	EFFLUENT 001 ZINC ug/l GRAB MONTHLY	
	mg/l 1st FLTR	mg/l 2nd FLTR GRAB	mg/l NET						
FACILITY I.D. 3 402003001 YEAR / MO / DAY BEGINNING 97 / 03 / 01 YEAR / MO / DAY ENDING 97 / 03 / 31 STATE CODE 06 NPDES PERMIT # CA0003751									
1									
2									
3									
4									
5									
6									
7				< 0.1					
8									
9									
10									
11									
12									
13				< 0.1	< 5	< 3	< 3	< 3	< 3
14									
15									
16									
17									
18									
19				< 0.1					
20									
21									
22									
23									
24									
25				< 0.1					
26									
27									
28									
29									
30									
31									
MONTHLY AVG	No			< 0.1	< 5	< 3	< 3	< 3	< 3
MONTHLY HIGH	Discharge			< 0.1	< 5	< 3	< 3	< 3	< 3
MONTHLY LOW				< 0.1	< 5	< 3	< 3	< 3	< 3
TIMES EXCEEDED	NO LIMIT	NO LIMIT	MO AVG 30 = 0	MO AVG 1.0 = 0	6M-MEAN 10 = 0	6M-MEAN 10 = 0	6M-MEAN 30 = 0	6M-MEAN 70 = 0	
TIMES EXCEEDED			D MAX 100 = 0	D MAX 3.0 = 0	D MAX 40 = 0	D MAX 50 = 0	D MAX 100 = 0	D MAX 380 = 0	
TIMES EXCEEDED					I MAX 100 = 0	I MAX 140 = 0	I MAX 260 = 0	I MAX 990 = 0	

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT DATE
Drew Squires *April 18, 1997*



FACILITY I.D. 3 402003001	YEAR / MO / DAY BEGINNING 97 / 03 / 01		YEAR / MO / DAY ENDING 97 / 03 / 31		STATE CODE 06	NPDES PERMIT # CA0003751			
STATION ANALYSIS UNITS SMPL TYPE FREQ.	INFLUENT T CHROMIUM ug/l GRAB JA/AP/JUL/OCT	INFLUENT COPPER ug/l GRAB JA/AP/JUL/OCT	INFLUENT NICKEL ug/l GRAB JA/AP/JUL/OCT	INFLUENT AMMONIA (N) ug/l GRAB JA/AP/JUL/OCT	EFFLUENT 001 AMMONIA (N) ug/l GRAB JA/AP/JUL/OCT	EFFLUENT 001D OIL & GREASE mg/l GRAB JA/AP/JUL/OCT	EFFLUENT 001G OIL & GREASE mg/l GRAB JA/AP/JUL/OCT	EFFLUENT 001H OIL & GREASE mg/l GRAB JA/AP/JUL/OCT	
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11						< 3			
12									
13	** < 5	** < 3	** < 3						
14									
15									
16									
17									
18									
19									
20								< 3	
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
MONTHLY AVG	< 5	< 3	< 3			< 3		< 3	
MONTHLY HIGH	< 5	< 3	< 3			< 3		< 3	
MONTHLY LOW	< 5	< 3	< 3			< 3		< 3	
TIMES EXCEEDED	NO LIMIT	NO LIMIT	NO LIMIT	NO LIMIT	6M-MEAN 3060 = 0	MO AVG 15 = 0	MO AVG 15 = 0	MO AVG 15 = 0	
TIMES EXCEEDED					D MAX 12240 = 0	D MAX 20 = 0	D MAX 20 = 0	D MAX 20 = 0	
TIMES EXCEEDED					I MAX 30600 = 0				

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY. **INFLUENT ANALYSIS PERFORMED FOR COMPARISON TO EFFLUENT. OTHER QUARTERLY ANALYSIS PERFORMED IN JANUARY.

PRINCIPAL EXECUTIVE OFFICER
 GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT
Drew Squires
 DATE
 April 18, 1997



FACILITY I.D.
3 402003001

YEAR / MO / DAY
BEGINNING 97 / 03 / 01

YEAR / MO / DAY
ENDING 97 / 03 / 31

STATE CODE
06

NPDES PERMIT #
CA0003751

STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 001I OIL & GREASE mg/1 GRAB JA/AP/JUL/OCT	EFFLUENT 001J OIL & GREASE mg/1 GRAB JA/AP/JUL/OCT	EFFLUENT 001K OIL & GREASE mg/1 GRAB JA/AP/JUL/OCT	EFFLUENT 001L OIL & GREASE mg/1 GRAB JA/AP/JUL/OCT	EFFLUENT 001M OIL & GREASE mg/1 GRAB JA/AP/JUL/OCT	EFFLUENT 001P OIL & GREASE mg/1 GRAB JA/AP/JUL/OCT	EFFLUENT 002 OIL & GREASE mg/1 GRAB JA/AP/JUL/OCT	EFFLUENT 003 OIL & GREASE mg/1 GRAB JA/AP/JUL/OCT
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29		< 3			3			
30								
31								
MONTHLY AVG	No	< 3	No	3	No			
MONTHLY HIGH	Discharge	< 3	Discharge	3	Discharge			
MONTHLY LOW		< 3		3				
TIMES EXCEEDED	MO AVG 15 = 0	MO AVG 15 = 0	MO AVG 15 = 0					
TIMES EXCEEDED	D MAX 20 = 0	D MAX 20 = 0	D MAX 20 = 0					
TIMES EXCEEDED								

REMARKS: * NUMBER OF SAMPLES TAKEN DURING THE DAY.

PRINCIPAL EXECUTIVE OFFICER
GREGORY M. RUEGER

SIGNATURE OF AUTHORIZED AGENT	DATE
<i>Drew Squires</i>	<i>April 18, 1997</i>



Unit: 0 NPDES
 UI DISCHARGE CHLORINE

From: 3/01/97 0:01
 Through: 3/31/97 23:59

Parameter:	0000 CHLOR INE	0400 CHLOR INE	0800 CHLOR INE	1200 CHLOR INE	1600 CHLOR INE	2000 CHLOR INE	lbs CHLORI NE INJECTE
High Limit:	89	89	89	89	89	89	
Low Limit:	10	10	10	10	10	10	
Sample Time:	ppb	ppb	PPB	PPB	PPB	PPB	LBS

3/01/97 0:01	54	54	54	28	54	45	196
3/02/97 0:01	28	37	37	26	37	41	196
3/03/97 0:01	26	41	45	26	45	37	196
3/04/97 0:01	28	41	37	26	45	34	196
3/05/97 0:01	28	37	37	15	31	31	196
3/06/97 0:01	10	34	37	18	37	28	196
3/07/97 0:01	22	37	37	24	34	34	196
3/08/97 0:01	24	37	37	24	41	37	196
3/09/97 0:01	24	37	31	37	26	28	196
3/10/97 0:01	37	28	28	28	28	26	196
3/11/97 0:01	26	26	26	45	26	26	145
3/12/97 0:01	45	26	22	45	26	26	196
3/13/97 0:01	49	26	26	26	26	26	170
3/14/97 0:01	26	26	26	14	22	24	170
3/15/97 0:01	12	22	22	10	20	20	196
3/16/97 0:01	10	18	12	10	26	24	196
3/17/97 0:01	11	23	23	14	26	24	196
3/18/97 0:01	13	21	21	10	20	24	196
3/19/97 0:01	11	22	18	20		24	150
3/20/97 0:01	18						26
3/21/97 0:01			20	18		20	78
3/22/97 0:01	15		18	14		18	104
3/23/97 0:01	15		18	15		20	104
3/24/97 0:01	15		22	18		22	104
3/25/97 0:01	18		18	14		15	104
3/26/97 0:01	15		16	14		18	104



Unit: 0 NPDES

From: 3/01/97 0:01

U1 DISCHARGE CHLORINE

Through: 3/31/97 23:59

Parameter:	0000 CHLOR INE	0400 CHLOR INE	0800 CHLOR INE	1200 CHLOR INE	1600 CHLOR INE	2000 CHLOR INE	lbs CHLORINE INJECTE
High Limit:	89	89	89	89	89	89	
Low Limit:	10	10	10	10	10	10	
Sample Time:	ppb	ppb	PPB	PPB	PPB	PPB	LBS
3/27/97 0:01	15		22	18		22	104
3/28/97 0:01	22		24	20		24	104
3/29/97 0:01	22		28			34	78
3/30/97 0:01	26		34	26		34	104
3/31/97 0:01	29		38	42		42	104



Unit: 0 NPDES
U2 DISCHARGE CHLORINE

From: 3/01/97 0:01
Through: 3/31/97 23:59

Parameter:	0100 CHLOR INE	0500 CHLOR INE	0900 CHLOR INE	1300 CHLOR INE	1700 CHLOR INE	2100 CHLOR INE	LBS OF CHL ORINE
High Limit:	89	89	89	89	89	89	
Low Limit:	0	0	0	0	0	0	
Sample Time:	PPB	PPB	PPB	PPB	PPB	PPB	LBS

3/01/97 1:00	26	26	26	20	15	18	276
3/02/97 1:00	18	20	22	15	17	18	276
3/03/97 1:00	20	20	26	13	13	15	276
3/04/97 1:00	<10	17	20	17	15	17	276
3/05/97 1:00	17	15	15	<10	<10	<10	276
3/06/97 1:00	<10	12	<10	<10	<10	<10	276
3/07/97 1:00	<10	<10	<10	<10	<10	<10	276
3/08/97 1:00	<10	<10	<10	<10	<10	<10	276
3/09/97 1:00	11	<10	<10	<10	<10	<10	276
3/10/97 1:00	<10	<10	<10	<10	<10	<10	276
3/11/97 1:00	<10	<10	<10	<10	<10	<10	282
3/12/97 1:00	<10	<10	<10	<10	<10	<10	288
3/13/97 1:00	<10	<10	<10	<10	<10	<10	288
3/14/97 1:00	<10	<10	<10	<10	<10	<10	288
3/15/97 1:00	<10	<10	<10	<10	<10	<10	288
3/16/97 1:00	<10	<10	<10	<10	<10	<10	288
3/17/97 1:00	<10	<10	<10	<10	<10	<10	288
3/18/97 1:00	<10	<10	<10	<10	<10	<10	288
3/19/97 1:00	<10	<10	<10	<10	<10	<10	292
3/20/97 1:00	<10				<10	<10	150
3/21/97 1:00	<10	<10	<10	<10	<10	<10	306
3/22/97 1:00	<10	<10	<10	<10	<10	<10	318
3/23/97 1:00	<10	<10	<10	<10	<10	<10	318
3/24/97 1:00	<10	<10	<10	<10	<10	<10	318
3/25/97 1:00	<10	<10	<10	<10	<10	<10	318
3/26/97 1:00	<10	<10	<10	<10	<10	<10	318



Unit: 0 NPDES
U2 DISCHARGE CHLORINE

From: 3/01/97 0:01
Through: 3/31/97 23:59

Parameter:	0100 CHLOR	0500 CHLOR	0900 CHLOR	1300 CHLOR	1700 CHLOR	2100 CHLOR	LBS OF CHLORINE
High Limit:	INE 89						
Low Limit:	0	0	0	0	0	0	
Sample Time:	PPB	PPB	PPB	PPB	PPB	PPB	LBS
3/27/97 1:00	<10	<10	<10	<10	<10	<10	318
3/28/97 1:00	<10	<10	<10	<10	<10	<10	318
3/29/97 1:00	<10	<10	<10	17	17	17	237
3/30/97 1:00	17	17	17	17	19	17	156
3/31/97 1:00	30	30	30	30	30	30	156



APPENDIX 5

DIABLO CANYON POWER PLANT

Acute Bioassay

January 13-17, 1997



PACIFIC GAS & ELECTRIC COMPANY
P. O. BOX 56
AVILA BEACH, CA 93424

LABORATORY TEST REPORT

SUBJECT: ACUTE TOXICITY ASSESSMENT OF DISCHARGE WATER FROM DIABLO CANYON POWER PLANT, FIRST QUARTER OF 1997

Introduction:

One acute toxicity bioassay (DCPP-244) was conducted at the Diablo Canyon Biological Laboratory on water sampled on January 13, 1997, from Diablo Canyon Power Plant's discharge 001. This bioassay satisfies this quarter's requirement for acute toxicity testing in Diablo Canyon Power Plant's NPDES Permit.

Methods:

The bioassay was a standard 96-hour static acute toxicity test conducted using the guidelines in Kopperdahl (1976) and EPA (1985). The dilutions tested were 100 percent effluent and a dilution water control. Juvenile red abalone (*Haliotis rufescens*) were used as the test species. The bioassay was begun within twenty-four hours of sample collection.

Results & Conclusions:

Measured toxicity was .31 (one mortality occurred during the test in the 100% dilution). The results of this test and the previous quarter's test are used to calculate the six month median valued. Measured toxicity for the fourth quarter of 1996 was 0. The calculated six month median from the two tests is .16. This value is below the six month median limit of .26. Since one mortality also occurred in the control, the observed results may actually be a function of handling stress rather than actual toxicity in the effluent. All measured chemical and physical parameters fell within accepted limits. The toxicity calculation and the data sheet are attached.

SUMMARY OF RESULTS

Assay No.	Date Sampled	Location	Toxicity (Tua)
DCPP-244	January 13, 1997	Discharge 001	.31 (one mortality)
DCPP-241 & 244	10/07/96 & 1/13/97	Discharge 001	.16 (calculated 6-month median)

References:

Kopperdahl, Fredric R. 1976. Guidelines for Performing Static Acute Toxicity Fish Bioassays in Municipal and Industrial Wastewaters. State Water Resources Control Board, and California Department of Fish and Game.

EPA, 1985. Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms. Third Edition. EPA/600/4-85/013

Distribution: AMJackson
 RWLorenz
 HRumsey
 RMS Indexer

DATE: <u>January 31, 1997</u>
TESTED: <u>[Signature]</u>
APPROVED BY: <u>[Signature]</u>
FILE NO.: _____



PACIFIC GAS & ELECTRIC COMPANY
 Technical and Ecological Services
DIABLO CANYON BIOLOGICAL LABORATORY
STATIC BIOASSAY REPORT SHEET
 One Concentration

ASSAY NO. DCP-244

TEST ORGANISM DATA :

TEST ORGANISM: Red Abalone, *Haliotis rufescens*
 SOURCE: Cayucos Abalone Farm Inc., Cayucos California
 AVERAGE LENGTH: 10.1mm RANGE: 8-12mm
 ACCLIMATION TIME: 4 days TEMP: 15 degrees C.
 WATER SOURCE: DCPD Discharge

TEST SOLUTION DATA :

SOURCE OF TEST SOLUTION:
 Diablo Canyon Power Plant Units 1 & 2
 Discharge 001 effluent Grab Sample
 DATE/TIME SAMPLED: 13 January 1997 @0855
 SAMPLED BY: CLS

DATE STARTED: 13-Jan-97

TIME STARTED: 1450 HOURS

VOLUME/DEPTH OF TEST SOLUTION : 16 Liters / 19 cm
 TYPE OF AERATION : Blo. Lab. Ring Compressor System

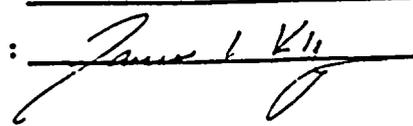
RENEWAL OF TEST SOLUTIONS AT 0 Hour Intervals
 ORGANISMS PER CONCENTRATION 30
 DILUTION WATER SOURCE : Control; Blo. Lab. Pump
 Seawater

TEST CONCENTRATIONS

	100%	CONTROL	INITIALS
0 HOURS			
TEMPERATURE (Degrees Celsius)	15.3	15.3	CLS
DISSOLVED OXYGEN (mg/Liter)	7.4	7.8	CLS
PH	8.0	7.9	CLS
SALINITY/HARDNESS	33.3	33.2	CLS
24 HOURS			
ORGANISMS SURVIVING	30	29	CLS/GAS
% SURVIVAL	100	96.7	CLS/GAS
TEMPERATURE (Degrees Celsius)	15.1	15.1	CLS/GAS
DISSOLVED OXYGEN (mg/Liter)	7.8	8.0	CLS/GAS
PH	7.9	8.0	CLS/GAS
48 HOURS			
ORGANISMS SURVIVING	30	29	CLS
% SURVIVAL	100	96.7	CLS
TEMPERATURE (Degrees Celsius)	15.3	15.3	CLS
DISSOLVED OXYGEN (mg/Liter)	7.8	7.8	CLS
PH	8.0	8.0	CLS
72 HOURS			
ORGANISMS SURVIVING	29	29	GAS
% SURVIVAL	96.7	96.7	GAS
TEMPERATURE (Degrees Celsius)	15.3	15.3	GAS
DISSOLVED OXYGEN (mg/Liter)	7.8	7.8	GAS
PH	8.0	8.0	GAS
96 HOURS			
ORGANISMS SURVIVING	29	29	GAS
% SURVIVAL	96.7	96.7	GAS
TEMPERATURE (Degrees Celsius)	15.2	15.2	GAS
DISSOLVED OXYGEN (mg/Liter)	7.8	7.8	GAS
PH	8.0	8.1	GAS
SALINITY/HARDNESS	33.5	33.3	GAS

TU: 0.31
 Procedure No. 2.3
 Temperature Probe No. 19
 Calibration Due Date 3-Apr-97

TESTED BY: CL Santala / GA Shlebel

Reviewed By: 



Toxicity Calculation

If survival is between 50 and 100 percent:

$$\text{Toxicity (TUa)} = \frac{\log (100-S)}{1.7}$$

S = Survival in 100 percent test concentration = 96.6%.

$$\text{Toxicity (TUa)} = \frac{\log (100-96.6)}{1.7} = \frac{.53}{1.7} = .31$$



Shell Lengths of Test Animals in millimeters :

	CONTROL	DISCHARGE
	9	10
	9	11
	12	11
	11	10
	10	11
	11	9
	10	11
	10	10
	10	10
	9	11
	9	11
	11	11
	9	9
	12	9
	10	10
	10	9
	10	11
	10	9
	11	10
	8	11
	9	10
	10	11
	9	11
	9	10
	11	9
	10	8
	9	9
	11	11
	11	10
	10	10
AVERAGE	10.0	10.1
STDEV.	0.98	0.88

Average Length Control and Discharge : 10.1

Range : 8 - 12 mm



APPENDIX 6

DIABLO CANYON POWER PLANT

Chronic Bioassay

January 8-10, 1997



PACIFIC GAS & ELECTRIC COMPANY
P.O. BOX 56
AVILA BEACH, CA 93424

LABORATORY TEST REPORT

**SUBJECT: CHRONIC TOXICITY ASSESSMENT OF DISCHARGE WATER FROM
 DIABLO CANYON POWER PLANT, FIRST QUARTER OF 1997**

Introduction:

One chronic toxicity bioassay (DCPP-245) was conducted at the Diablo Canyon Biological Laboratory on water sampled January 7-8, 1997, from Diablo Canyon Power Plant's discharge 001. A reference toxicant test (DCPP-245Z) using zinc sulfate was also conducted. These quarterly bioassays were conducted to comply with the requirement for periodic chronic toxicity testing in the 1990 California Ocean Plan.

Methods:

The bioassays were 48 hour chronic toxicity tests conducted using a state approved protocol developed by the Water Resources Control Board. Larval red abalone (*Haliotis rufescens*) were used as the test organism. The bioassays were begun within thirty-six hours of sample collection.

Results:

The highest concentration of the effluent sample that was not significantly different from the Control was the 100% concentration (No Observed Effect Concentration (NOEC) = 100%). Toxicity (TUc) = 100/NOEC = 1.0. A toxicity of 1.0 indicates no chronic toxicity in the discharge sample. Data were analyzed using ANOVA with Dunnet's Test. The effluent test and the reference toxicant test met all test acceptance criteria. Data sheets and statistical analysis results are attached.

SUMMARY OF RESULTS

Test Solution	Assay No.	Date Sampled	Toxicity (TUc)
Discharge 001	DCPP-245	January 7-8, 1997	1.0 (NOEC = 100%)
Reference Toxicant	DCPP-245Z	January 8, 1997	5.56 (NOEC = <18 ug/l)

References:

State of California. October 1990. Procedures Manual for Conducting Toxicity Tests Developed by the Marine Bioassay Project. Water Resources Control Board.

US EPA. August 1995. Chronic Bioassay Methods.

Distribution: AMJackson
 RWLorenz
 HRumsey
 RMS Indexer

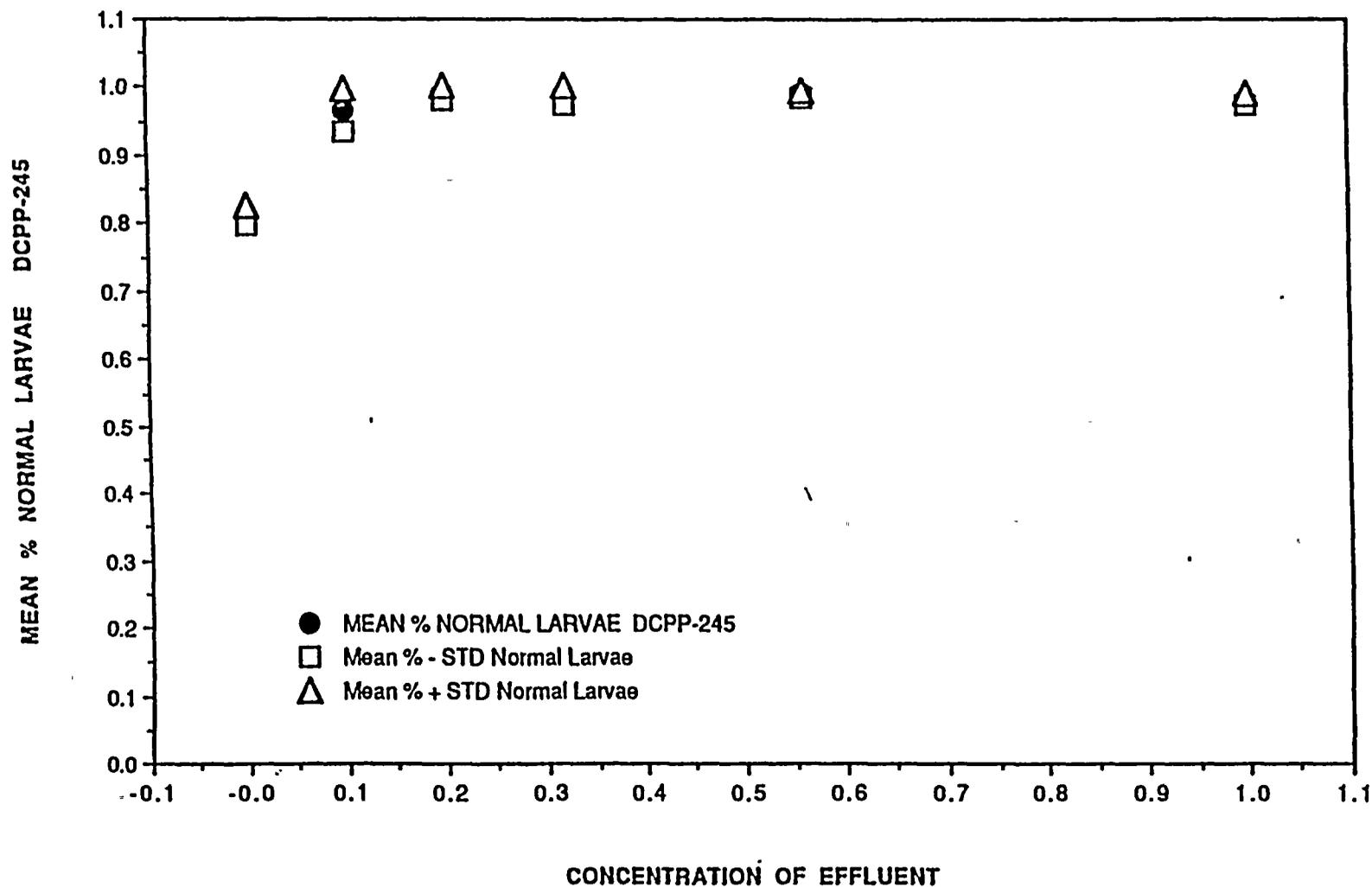
DATE:	January 29, 1997
TESTED BY:	James L. Kelly
APPROVED BY:	[Signature]
FILE NO.:	



Test Container Number	Effluent Concentration Percent	Number Abnormal Larvae	Number Normal Larvae	Percentage of Normal Larvae	Mean % Normal Larvae	Standard Deviation Normal Larvae	Mean less Standard Deviation	Mean plus Standard Deviation	Percentage of Abnormal Larvae	Mean % Abnormal Larvae
21	0.0% Control 0.45 um Filtered Seawater	36	164	82.00%	0.813	0.014	0.799	0.827	18.00%	0.187
23		39	161	80.50%					19.50%	
27		39	161	80.50%					19.50%	
29		33	167	83.50%					16.50%	
33		40	160	80.00%					20.00%	
3	10.0%	5	195	97.50%	0.966	0.032	0.934	0.998	2.50%	0.034
8		3	197	98.50%					1.50%	
11		4	196	98.00%					2.00%	
15		4	196	98.00%					2.00%	
34		18	182	91.00%					9.00%	
12	20.0%	2	198	99.00%	0.991	0.009	0.982	1.000	1.00%	0.009
22		0	200	100.00%					0.00%	
24		3	197	98.50%					1.50%	
31		0	200	100.00%					0.00%	
40		4	196	98.00%					2.00%	
1	32.0%	2	198	99.00%	0.989	0.014	0.975	1.003	1.00%	0.011
17		0	200	100.00%					0.00%	
20		0	200	100.00%					0.00%	
26		2	198	99.00%					1.00%	
37		7	193	96.50%					3.50%	
2	56.0%	1	199	99.50%	0.990	0.005	0.985	0.995	0.50%	0.010
4		3	197	98.50%					1.50%	
9		3	197	98.50%					1.50%	
16		2	198	99.00%					1.00%	
45		1	199	99.50%					0.50%	
10	100.0%	6	194	97.00%	0.982	0.008	0.974	0.990	3.00%	0.018
14		4	196	98.00%					2.00%	
25		2	198	99.00%					1.00%	
35		2	198	99.00%					1.00%	
38		4	196	98.00%					2.00%	



DCPP - 245 Chronic Larval Abalone Bioassay January 08-10, 1997 Diablo Canyon Power Plant Unit 1-2 Discharge Effluent





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Diablo Canyon Biological Laboratory

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Test Date: 1/08/97
 Sample Date: 1/07/97
 Species: Haliotis rufescens
 Test Type: Chronic

Test Number: OCPP-245
 Test Material: Effluent - Power Plant %
 Source: CA0003751
 RWQCB Discharge permit
 Diablo Canyon Power Plant

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SUMMARY

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End Point	Day	Transformation	Conc	#Reps	Mean	StDev	% Surv
Proportion Normal		Arc sine sqrt w/out adj.	X 0.000 0	5	1.12	.019	
			X 10.000 0	5	1.40	.074	
			X 20.000 0	5	1.48	.055	
			X 32.000 0	5	1.49	.080	
			X 56.000 0	5	1.47	.026	
			X 100.000 0	5	1.44	.032	
			Proportion Normal		No transformation	- 0.000 0	5
10.000 0	5	.97				.032	
20.000 0	5	.99				.007	
32.000 0	5	.99				.014	
56.000 0	5	.99				.005	
100.000 0	5	.98				.008	

X = indicates concentrations used in calculations

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- HYPOTHESIS TEST -

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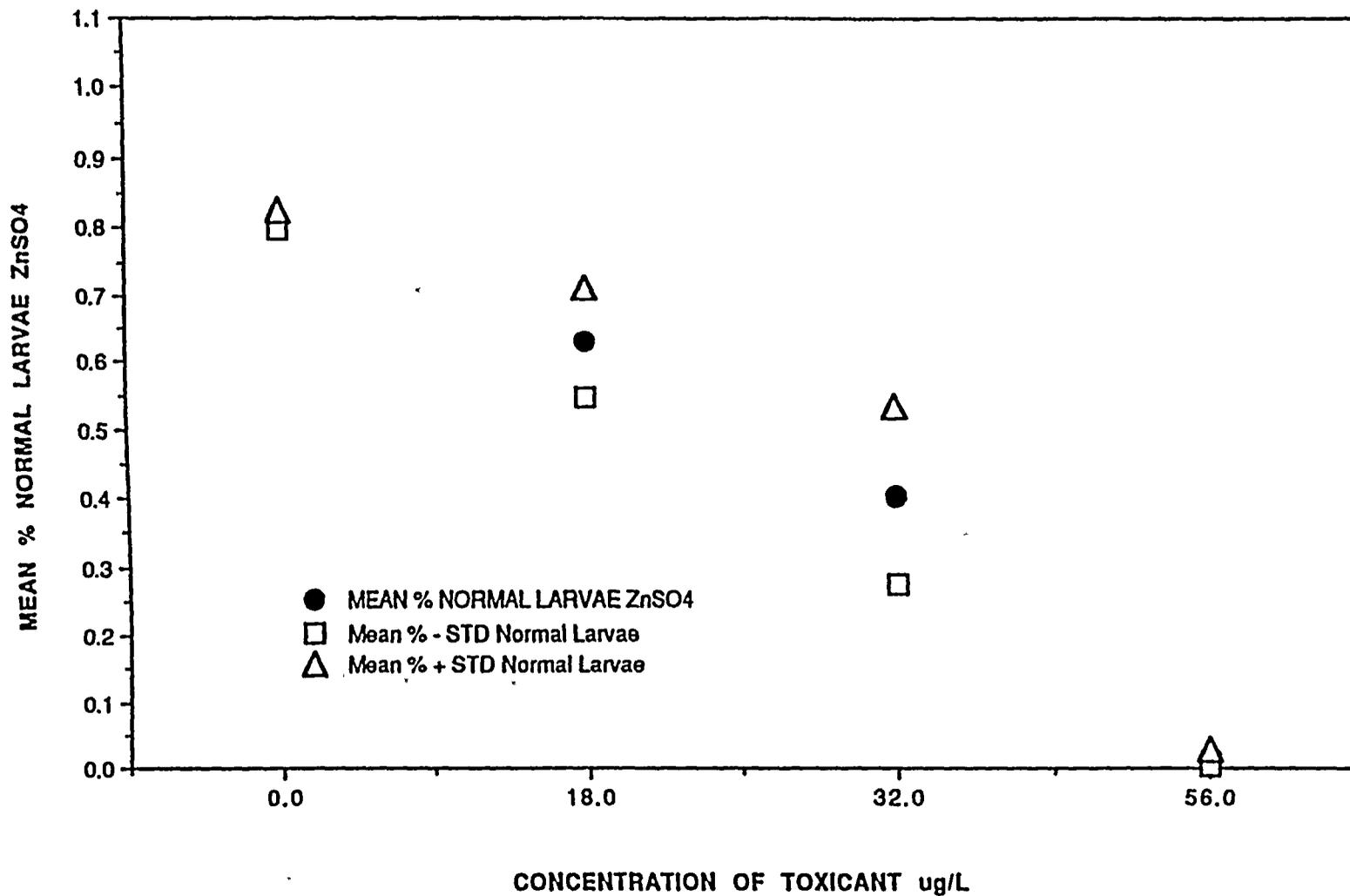
End Point	Day	Transformation/Analysis	NOEC	LOEC	TU	MSE	MSD
Proportion Normal		Arc sine sqrt w/out adj.					
		Dunnnett	>100.000	>100.000 <	1.00	.003	.065



DCPP - 245 - Z Chronic Larval Abalone Bloassa...inc Sulfate Reference Toxicant Preparatlons

Test Container Number	Toxicant Concentration ug per Liter	Number Abnormal Larvae	Number Normal Larvae	Percentage of Normal Larvae	Mean % Normal Larvae	Standard Deviation Normal L.	Mean less Standard Deviation	Mean plus Standard Deviation	Percentage of Abnormal Larvae	Mean % Abnormal Larvae
21	0.0%	36	164	82.00%	0.813	0.014	0.799	0.827	18.00%	0.187
23	Control 0.45 um Filtered Seawater	39	161	80.50%					19.50%	
27		39	161	80.50%					19.50%	
29		33	167	83.50%					16.50%	
33		40	160	80.00%					20.00%	
6		18.0	95	105	52.50%	0.628	0.082	0.546	0.710	47.50%
7		80	120	60.00%					40.00%	
32		62	138	69.00%					31.00%	
39		81	119	59.50%					40.50%	
43		54	146	73.00%					27.00%	
5	32.0	131	69	34.50%	0.402	0.127	0.275	0.529	65.50%	0.598
30		158	42	21.00%					79.00%	
41		100	100	50.00%					50.00%	
42		96	104	52.00%					48.00%	
44		113	87	43.50%					56.50%	
13	56.0	195	5	2.50%	0.016	0.011	0.005	0.027	97.50%	0.984
18		195	5	2.50%					97.50%	
19		200	0	0.00%					100.00%	
28		196	4	2.00%					98.00%	
36		198	2	1.00%					99.00%	







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Diablo Canyon Biological Laboratory

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Test Date: 1/08/97
 Sample Date: 1/08/97
 Species: Haliotis rufescens
 Test Type: Chronic

Test Number: DCP-2452
 Test Material: Zinc sulfate ug/L
 Source: REF
 Reference Toxicant

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SUMMARY

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End Point	Day	Transformation	Conc	#Reps	Mean	StDev	% Surv
Proportion Normal		Arc sine sqrt w/out adj.	X 0.000 0	5	1.12	.019	
			X 18.000 0	5	.92	.085	
			X 32.000 0	5	.68	.135	
			X 56.000 0	5	.11	.067	
Proportion Normal		No transformation	0.000 0	5	.81	.014	
			18.000 0	5	.63	.082	
			32.000 0	5	.40	.127	
			56.000 0	5	.02	.011	

X = indicates concentrations used in calculations

=====

- HYPOTHESIS TEST -

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End Point	Day	Transformation/Analysis	NOEC	LOEC	TU	MSE	MSD
Proportion Normal		Arc sine sqrt w/out adj. Dunnett	< 18.000	18.000 >		.008	.104

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- PROPORTION POINT ESTIMATE -

=====

End Point	Day	Method	P	Conc	95% CI	TU
Proportion Normal		Graphical Interpolation	EC 15		-	
			EC 25	18.856	-	
			EC 40	25.721	-	
			EC 50	31.636	-	



PHYSICAL and CHEMICAL MEASUREMENTS

**Larval Red Abalone Chronic Bioassay
Diablo Canyon Biological Laboratory**

Test Start Date/Time : 8 January 1997 @ 15:59

Bioassay Number (s) : DCP - 245

Test Finish Date/Time : 10 January 1997 @ 15:59

Collection Date (s) : July 07 - 08 . 1997 @ 09:00

Test Organism : *Halotis rufescens*

MEASUREMENTS AT START OF ASSAY

MEASUREMENTS AT FINISH OF ASSAY

	PH	D. OXYGEN	SALINITY	CONTAINER	PH	D. OXYGEN	SALINITY
CONTROL	8.0	7.6	34.3	23	7.9	7.5	35.0

REFERENCE TOXICANT : ZnSO4

18ug / L	8.0	7.2	33.1	39	8.0	7.4	33.3
32ug / L	8.0	7.4	33.0	44	7.9	7.2	33.4
56ug / L	8.0	7.5	33.1	18	8.0	7.4	33.2

Effluent Source: Diablo Canyon Power Plant 001 Discharge

Collection Date/Time: January 06-07, 1997 @ 09:00

10%	8.0	7.5	33.6	15	7.9	7.6	33.5
20%	8.0	7.4	33.3	31	8.0	7.5	33.4
32%	8.0	7.5	33.3	26	8.0	7.6	33.3
56%		7.4	33.1	16	8.0	7.5	33.3
100%	8.0	7.0	33.1	35	8.0	7.3	33.4

Hourly Temperature Data

Hour 01	Hour 13	Hour 25	Hour 37
15.65	14.99	15.11	14.94
15.49	14.98	15.00	14.94
15.27	14.98	14.97	14.94
15.16	14.97	14.99	14.93
15.08	14.97	15.00	14.92
15.06	15.48	14.98	15.20
15.04	15.51	14.98	15.14
15.02	15.30	14.98	15.02
15.01	15.18	14.96	14.93
15.00	15.14	14.95	14.92
14.99	15.12	14.95	14.92
15.00	15.13	14.95	15.37
Hour 12	Hour 24	Hour 36	Hour 48

Mean Temperature 48 Hour Static Test

15.07 Degrees Celsius

Standard Deviation Hourly Temperature

0.18

Analyzed By : Christina L. Santala

Reviewed by : *James L. Kelly*

Date Analyzed : 08 January 1997 / 10 January 1997

Date Reviewed : 1/23/97



Randomization and Dilution Data Sheet
Red Abalone Chronic Bioassay
Diablo Canyon Biological Laboratory

Test Start Date/Time: 08 Jan 1997 @ 15:59

Bioassay Number: DCPP-245

Test Finish Date/Time: 10 Jan 1997 @ 15:59

Test Organism : Haliotis rufescens

Corresponding Container Numbers

Control Solution: 0.45um Filtered Seawater

27 (23) 29 33 21

Reference Toxicant : ZnSO4
 Stock Solution 0.0440g in 1 liter Distilled Water
 Dilution source : Filtered Seawater

2.16 ml in 1200 ml total volume 18ug/l

7 43 32 (39) 6

3.84 ml in 1200 ml total volume 32ug/l

41 42 (44) 30 5

6.72 ml in 1200 ml total volume 56ug/l

36 (18) 19 28 13

Effluent : 100% Effluent is the stock solution
 Dilution source : Filtered Seawater

Effluent Source: DCPP Discharge
 Collection Date/Time: 07-08 Jan 1997 @ 09:00

120 ml in 1200 ml total volume 10%

3 34 (15) 8 11

240 ml in 1200 ml total volume 20%

(31) 24 40 22 12

384 ml in 1200 ml total volume 32%

37 20 1 17 (26)

672 ml in 1200 ml total volume 56%

45 (16) 4 2 9

1200 ml in 1200 ml total volume 100%

25 14 10 (35) 38

Prepared By: Christina Santala

Date Prepared: 06 January 1997



Larval Red Abalone Chronic Bioassay
Diablo Canyon Biological Laboratory

Test Start Date/Time : 1/8/97 @ 1559 Bioassay Number(s) : DCPP -245

Test Finish Date/Time : 1/10/97 @ 1559 Effluent Source (s) : Diablo Canyon PP Discharge

Test Organism : Haliotis rufescens Collection Date/Time : ⁰⁷⁻⁰⁸ January 08-07, 1997 @ 09:00

	<u>Males Used</u>	<u>Gonad Index</u>	<u>Date Last Used</u>		<u>Females Used</u>	<u>Gonad Index</u>	<u>Date Last Used</u>
1	<u>Unmarked</u>	<u>4</u>	<u>No Prior Use</u>	1	<u>Unmarked</u>	<u>4</u>	<u>No Prior Use</u>
2	<u>Unmarked</u>	<u>4</u>	<u>No Prior Use</u>	2	<u>Unmarked</u>	<u>4</u>	<u>No Prior Use</u>
3	<u>Unmarked</u>	<u>4</u>	<u>No Prior Use</u>	3	<u>Unmarked</u>	<u>4</u>	<u>No Prior Use</u>
4	<u>Unmarked</u>	<u>3</u>	<u>No Prior Use</u>	4	<u>Unmarked</u>	<u>4</u>	<u>No Prior Use</u>

Method of spawning : () Peroxide () UV irradiated seawater () Other _____

Start of spawning treatment : Male 1050 Female 1050 Peroxide Solution Flushed From Spawn Tanks :

First Male spawns : 1310 Male : 1305 Female : 1320

First Female spawns : 1320 Comments: _____

Multiple spawners : Male : 1330 Female : 1343

Condition of spawn : Males : () light () moderate () heavy : Females : () light () moderate () heavy

Sperm added to egg container : 1435 Time fertilization complete : 1500

Determination of embryo density. Counts of 1 ml samples taken from beaker of condensed fertilized eggs :

1: 409 2: 454 3: 400 4: 423 5: 408

Mean : 419 STD : 19.1

Addition of 1000 embryos to each test container :

Pipette the volume calculated below from the well-mixed beaker sampled above.

(1000 embryos/test container) / (419 #embryos/ml) = 2.4 ml/test container

Temperature of embryos : 15.13° Celsius Temperature of test containers : 15.16° Celsius

Time all containers in incubator : 1559

Comments : To insure adequate spawn success. 4 additional Male and 4 additional Female abalone, gonad index 3 - 4, will be used in the Hydrogen Peroxide spawn induction procedure.

Prepared By : Christina Santala

Reviewed By : James L. Kelly

Date Prepared : 8 January 1997

Date Reviewed : 1/23/97



LARVAL DEVELOPMENT DATA SHEET

Larval Red Abalone Chronic Bioassay
Diablo Canyon Biological Laboratory

Test Start Date/Time : 08 January 1997 @ 15:59

Bioassay Number : DCPD - 245

Test Finish Date/Time : 10 January 1997 @ 15:59

Effluent Source : Diablo Canyon PP 001 Discharge

REFERENCE TOXICANT : ZnSO₄ • 7H₂O

Collection Date : January 07 - 08, 1997 @ 09:00

Vial Number	Test Container Number	Number of Abnormal Larvae	Number of Normal Larvae		Vial Number	Test Container Number	Number of Abnormal Larvae	Number of Normal Larvae
1	1	2	198		24	24	3	197
2	2	1	199		25	25	2	198
3	3	5	195		26	26	2	198
4	4	3	197		27	27	39	161
5	5	131	69		28	28	196	4
6	6	95	105		29	29	33	167
7	7	80	120		30	30	158	42
8	8	3	197		31	31	0	200
9	9	3	197		32	32	62	133
10	10	6	194		33	33	40	160
11	11	4	196		34	34	18	182
12	12	2	198		35	35	2	193
13	13	195	5		36	36	198	2
14	14	4	196		37	37	7	193
15	15	4	196		38	38	4	196
16	16	2	198		39	39	81	119
17	17	0	200		40	40	4	196
18	18	195	5		41	41	100	100
19	19	200	0		42	42	96	104
20	20	0	200		43	43	54	146
21	21	36	164		44	44	113	87
22	22	0	200		45	45	1	199
23	23	39	161					

C. Santala 1/13/97

C. Santala 1/14/97

Analyzed by : Christina Santala

Reviewed by : James L. Kelly

Date Analyzed : 12/14 January 1997

Date Reviewed : 1/23/97



Incubator Temperature Recordings DCPPT-245 Chronic Larval Abalone Bioassay

1/8/97	15:22:44	113	15.21	1/9/97	8:07:05	117	14.97	1/10/97	0:37:18	113	14.97
1/8/97	15:42:54	113	15.16	1/9/97	8:27:11	113	14.96	1/10/97	0:57:27	113	14.96
1/8/97	16:02:50	113	15.66	1/9/97	8:47:22	113	14.97	1/10/97	1:17:31	113	14.95
1/8/97	16:22:55	113	15.76	1/9/97	9:07:30	113	14.97	1/10/97	1:37:33	113	14.95
1/8/97	16:43:04	113	16.72	1/9/97	9:27:39	113	14.98	1/10/97	1:57:36	113	14.95
1/8/97	17:03:04	113	15.65	1/9/97	9:47:39	113	15.12	1/10/97	2:17:39	113	14.94
1/8/97	17:23:11	113	15.61	1/9/97	10:07:53	113	15.48	1/10/97	2:37:42	113	14.93
1/8/97	17:43:06	113	15.55	1/9/97	10:27:55	113	15.55	1/10/97	2:57:45	113	14.95
1/8/97	18:03:19	113	15.49	1/9/97	10:48:03	113	15.56	1/10/97	3:17:44	113	14.94
1/8/97	18:23:18	113	15.41	1/9/97	11:08:08	113	15.51	1/10/97	3:37:47	113	14.94
1/8/97	18:43:28	113	15.34	1/9/97	11:28:11	113	15.43	1/10/97	3:57:51	113	14.95
1/8/97	19:03:28	113	15.27	1/9/97	11:48:16	113	15.33	1/10/97	4:17:52	113	14.94
1/8/97	19:23:28	113	15.22	1/9/97	12:08:26	113	15.30	1/10/97	4:37:57	113	14.93
1/8/97	19:43:33	113	15.19	1/9/97	12:28:33	113	15.24	1/10/97	4:58:09	113	14.94
1/8/97	20:03:38	113	15.16	1/9/97	12:48:37	113	15.21	1/10/97	5:18:11	113	14.93
1/8/97	20:23:39	113	15.13	1/9/97	13:08:39	113	15.16	1/10/97	5:38:13	113	14.93
1/8/97	20:43:49	113	15.12	1/9/97	13:28:41	113	15.16	1/10/97	5:58:15	113	14.94
1/8/97	21:03:56	113	15.08	1/9/97	13:48:49	113	15.15	1/10/97	6:18:25	113	14.95
1/8/97	21:24:04	113	15.08	1/9/97	14:08:53	113	15.14	1/10/97	6:38:26	113	14.93
1/8/97	21:44:14	113	15.07	1/9/97	14:28:22	113	15.13	1/10/97	6:58:34	113	14.94
1/8/97	22:04:15	113	15.06	1/9/97	14:38:46	113	15.13	1/10/97	7:18:44	113	14.94
1/8/97	22:24:20	113	15.05	1/9/97	14:58:48	113	15.12	1/10/97	7:38:47	113	14.95
1/8/97	22:44:28	113	15.05	1/9/97	15:14:13	113	15.11	1/10/97	7:58:50	113	14.93
1/8/97	23:04:37	113	15.04	1/9/97	15:34:25	113	15.12	1/10/97	8:18:53	113	14.93
1/8/97	23:24:46	113	15.03	1/9/97	15:54:35	113	15.13	1/10/97	8:38:55	113	14.93
1/8/97	23:44:56	113	15.01	1/9/97	16:14:44	113	15.11	1/10/97	8:58:56	113	14.92
1/9/97	0:05:05	113	15.02	1/9/97	16:34:46	113	15.11	1/10/97	9:18:58	113	14.91
1/9/97	0:25:15	113	14.99	1/9/97	16:54:50	113	15.11	1/10/97	9:38:57	113	14.91
1/9/97	0:45:23	113	15.01	1/9/97	17:15:00	113	15.11	1/10/97	9:59:03	113	15.20
1/9/97	1:05:34	113	15.01	1/9/97	17:35:08	113	15.10	1/10/97	10:19:02	113	15.24
1/9/97	1:25:45	113	15.00	1/9/97	17:55:10	113	15.00	1/10/97	10:39:06	113	15.19
1/9/97	1:45:53	113	14.99	1/9/97	18:15:19	113	14.96	1/10/97	10:59:12	113	15.14
1/9/97	2:05:54	113	15.00	1/9/97	18:35:29	113	14.96	1/10/97	11:19:13	113	15.09
1/9/97	2:26:03	113	15.00	1/9/97	18:55:30	113	14.97	1/10/97	11:39:18	113	15.04
1/9/97	2:46:04	113	15.00	1/9/97	19:15:32	113	14.98	1/10/97	11:59:18	113	15.02
1/9/97	3:06:08	113	14.99	1/9/97	19:35:41	113	14.98	1/10/97	12:19:23	113	14.99
1/9/97	3:26:12	113	14.99	1/9/97	19:55:50	113	14.99	1/10/97	12:39:24	113	14.98
1/9/97	3:46:15	113	15.00	1/9/97	20:15:54	113	14.99	1/10/97	12:59:28	113	14.93
1/9/97	4:06:20	113	15.00	1/9/97	20:35:57	113	15.00	1/10/97	13:19:29	113	14.95
1/9/97	4:26:26	113	14.99	1/9/97	20:56:01	113	15.00	1/10/97	13:39:31	113	14.92
1/9/97	4:46:28	113	14.99	1/9/97	21:16:12	113	14.99	1/10/97	13:59:32	113	14.92
1/9/97	5:06:34	113	14.99	1/9/97	21:36:15	113	14.99	1/10/97	14:19:37	113	14.92
1/9/97	5:26:35	113	14.98	1/9/97	21:56:18	113	14.98	1/10/97	14:39:39	113	14.91
1/9/97	5:46:37	113	14.99	1/9/97	22:16:22	113	14.97	1/10/97	14:59:45	113	14.92
1/9/97	6:06:40	113	14.98	1/9/97	22:36:33	113	14.99	1/10/97	15:19:46	113	15.15
1/9/97	6:26:47	113	14.98	1/9/97	22:56:35	113	14.98	1/10/97	15:39:50	113	15.31
1/9/97	6:46:51	113	14.98	1/9/97	23:16:38	113	14.98	1/10/97	15:59:56	113	15.37
1/9/97	7:06:54	113	14.98	1/9/97	23:36:46	113	14.97	1/10/97	16:19:55	113	15.25
1/9/97	7:26:58	113	14.98	1/9/97	23:56:57	113	14.98				
1/9/97	7:47:06	113	14.98	1/10/97	0:17:08	113	14.97				

