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SUBJECT: "Discharge Monitoring at Diablo Canyon Power Plant during  
Second Quarter of 1990." W/900720 ltr.

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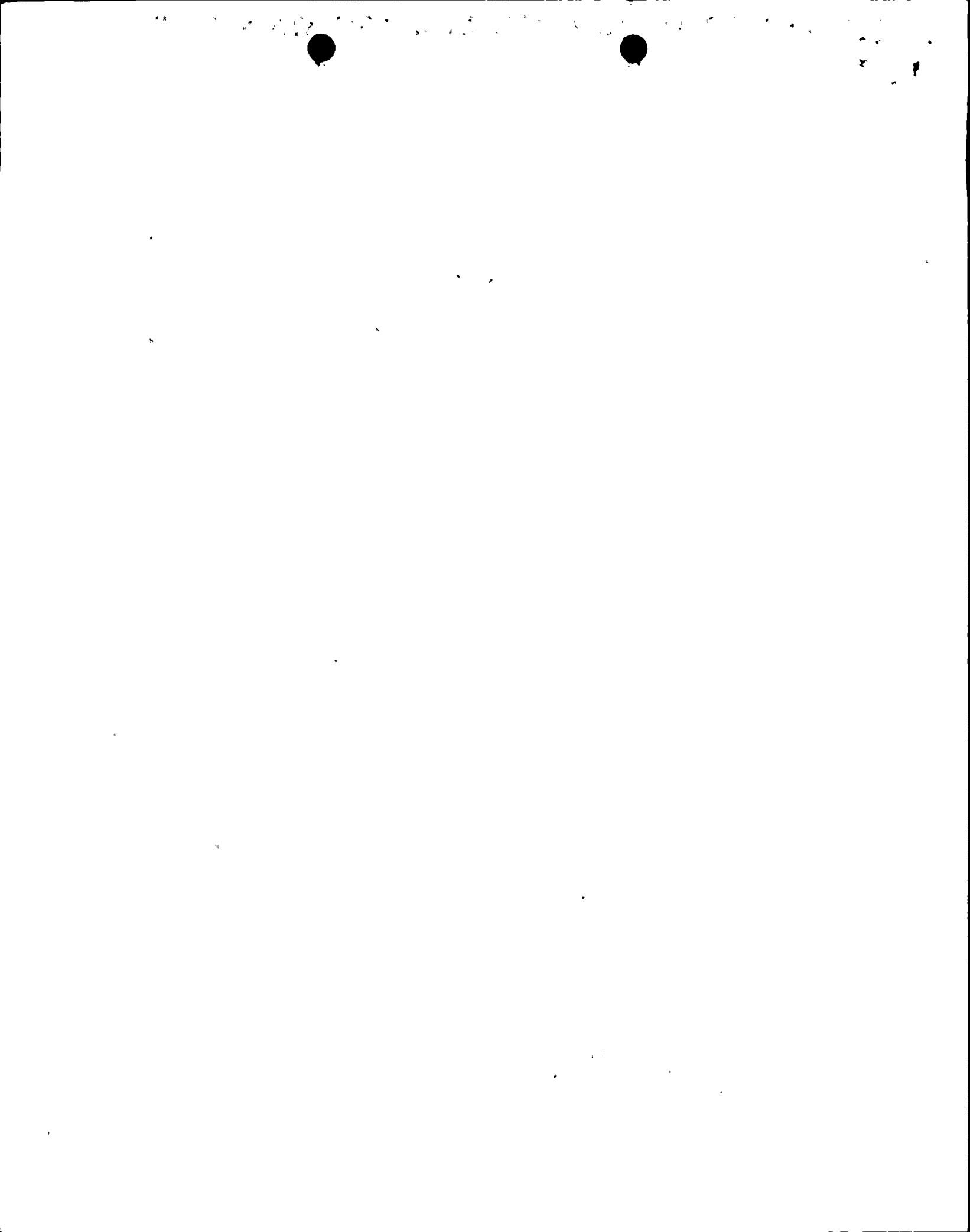
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	IRM TECH ADV	1 1	NRR/DREP/PRPB11	2 2
	<u>REG FILE</u> 01	1 1	RGN5 DRSS/RPB	1 1
	RGN5 FILE 02	1 1		
EXTERNAL:	EG&G SIMPSON,F	2 2	LPDR	1 1
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Pacific Gas and Electric Company

Diablo Canyon Power Plant  
P.O. Box 56  
Avila Beach, CA 93424  
805/595-7351

John D. Townsend  
Vice President-Diablo Canyon Operations  
and Plant Manager

July 20, 1990



Mr. William Leonard, Executive Officer  
California Regional Water Quality Control Board  
Central Coast Region  
1102-A Laurel Lane  
San Luis Obispo, California 93401

Dear Mr. Leonard:

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

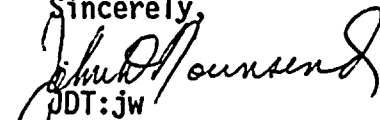
The report for the second quarter of 1990 of the Diablo Canyon Power Plant Discharge Monitoring Program, in accordance with Order 90-09, NPDES No. CA0003751 is enclosed.

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 any 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 further questions, please contact Mr. Paul G. Dahan of my staff at (805) 595-4054.

Kindly acknowledge receipt of this material on the enclosed copy of this letter and return it in the enclosed addressed envelope.

Sincerely,

  
JDT:jw  
Enclosure

9007240014 900630  
PDR ADOCK 05000275  
R PDC

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

Regional Administrator, Region IX  
Environmental Protection Agency  
215 Fremont Street  
W-4-2, Attention: Tom Cremar  
San Francisco, California 94105

Regional Administrator  
U. S. Nuclear Regulatory Commission  
Region 5  
1450 Maria Lane, Suite 210  
Walnut Creek, California 94596-5368

Document Control Desk  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555

Chief, Marine Resources Division  
California Department of Fish and Game  
Resources Building  
1416 Ninth Street  
Sacramento, California 95814





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PACIFIC GAS & ELECTRIC COMPANY  
NUCLEAR POWER GENERATION

REPORT ON  
DISCHARGE MONITORING AT  
DIABLO CANYON POWER PLANT  
DURING THE SECOND QUARTER OF 1990



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## OVERVIEW

- A. During the month of June, discharges occurred from Discharge Paths 001 (once through cooling water), 001B, 001D, 001E, 001F, 001G, 001H, 001J, 001L, 001M, 001N, 001P, and 002 through 0017. No discharges occurred from Discharge Paths 001I and 001K.
- B. NPDES permit number 90-09 for the Diablo Canyon Power Plant was approved on May 11, 1990. The new permit requires that routine monitoring be reported quarterly rather than monthly. This report contains only data for the month of June. Data for the months of April and May, as well as quarterly data, have been submitted under permit 85-101. The first report for a full quarter under permit number 90-09 will be submitted for the months of July, August and September on October 20, 1990.
- C. Discharge 005 was sampled on April 16, 1990 to perform the quarterly analysis for PCB under permit 85-101. The analysis result is <0.2 micrograms/L PCB.
- D. In all cases, chemical, radiochemical, and toxicity analyses were performed in accordance with chemical analysis procedures contained in the Diablo Canyon Power Plant, Units 1 and 2 Plant Manual, Volume 8, by State approved laboratories, or laboratories meeting the requirements specified in the California Regional Water Quality Control Board Central Coast Region "Standard Provisions and Reporting Requirements" dated January 25, 1985. Receiving water monitoring was performed in accordance with approved biological and oceanographic procedures.

## SUMMARY OF MONITORING PROGRAM

### A. Monitoring of Plant Influent and Effluent

The results of the June plant influent and effluent monitoring are reported in Appendix 1.

A DCCP toxicity bioassay on water sampled from discharge 001 is performed in January, April, July, and October.

### B. Monitoring of Receiving Waters

Under the new discharge permit the following subtasks are no longer required as of June 1, 1990:

Subtidal Video Transects  
Incident Light Measurements  
Surface Water Temperatures  
Aerial Kelp Photographs



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1. Ecological Studies at Diablo Canyon

Ecological studies in the vicinity of Diablo Cove, referred to as the Diablo Canyon Thermal Effects Monitoring Program (TEMP), continue.

2. Sediment Analysis

Sediment samples are collected and analysis reported in September.

3. Stratified Water Temperatures

Stratified water temperatures measured June 19, 1990 are reported in Appendix 2. A map is included showing station locations.

4. Dissolved Oxygen and pH of Receiving Waters

Results of dissolved oxygen and pH sampling conducted June 19, 1990 are presented in Appendix 3. Also included is a map of station locations.

5. In-situ Bioassay

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



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APPENDIX 1

Influent and Effluent Monitoring  
Data for June 1990

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
 CENTRAL COAST REGION  
 1102A LAUREL LANE  
 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 90 / 06 / 01

YEAR/ MO / DAY  
 ENDING 90 / 06 / 30

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
JUNE								
1	49.4	69.3	19.9	2486	7.6	7.5		
2	48.4	68.5	20.1	2486				
3	48.6	68.6	20.0	2486				
4	48.7	68.3	19.6	2486				
5	48.0	67.9	19.9	2486				
6	49.4	68.8	19.4	2561				
7	49.5	68.9	19.4	2561				
8	49.9	69.4	19.5	2564				
9	51.3	70.4	19.1	2474				
10	50.9	69.4	18.5	2394			7.5	2 7.9
11	49.8	69.2	19.4	2486				
12	49.5	69.1	19.6	2486				
13	49.2	68.9	19.7	2486				
14	51.2	69.5	18.3	2338				
15	52.9	64.8	11.9	2084				
16	52.1	64.5	12.4	1928				
17	51.8	64.0	12.2	1986				
18	51.8	64.2	12.4	1928				
19	51.9	64.6	12.7	1927				
20	52.8	68.1	15.3	1943				
21	53.8	71.2	17.4	1967				
22	53.4	71.1	17.7	2020				
23	52.6	71.2	18.6	1833				
24	52.3	71.0	18.7	1930				
25	51.9	70.6	18.7	1933				
26	51.6	66.2	14.6	2457				
27	51.6	66.0	14.4	2577				
28	50.8	68.0	17.2	2562				
29	51.1	69.2	18.1	2564				
30	53.8	71.9	18.1	2558				
31								
MONTHLY AVG	51.0	68.4	17.4	2299				7.9
MONTHLY HIGH	53.8	71.9	20.1	2577				7.9
MONTHLY LOW	48.0	64.0	11.9	1833				7.8
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 Deaerating.  
 (\*\*\*\*) Daily when discharging chemical cleaning wastes from discharges 001D, F, I, L and/or M.

PRINCIPAL EXECUTIVE OFFICER  
 JAMES D. SHIFFER

SIGNATURE OF AUTHORIZED AGENT  
 DATE  
 7/1/90



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CALIFORNIA REGIONAL WATER QUALITY  
CONTROL BOARD  
CENTRAL COAST REGION  
1102A LAUREL LANE  
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) 2

FACILITY I.D. 3 402003001  
YEAR/ MO / DAY BEGINNING 90 / 06 / 01  
YEAR/ MO / DAY ENDING 90 / 06 / 30  
STATE CODE 06  
NPDES PERMIT # CA0003751

STATION ANALYSIS UNITS SKPL 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
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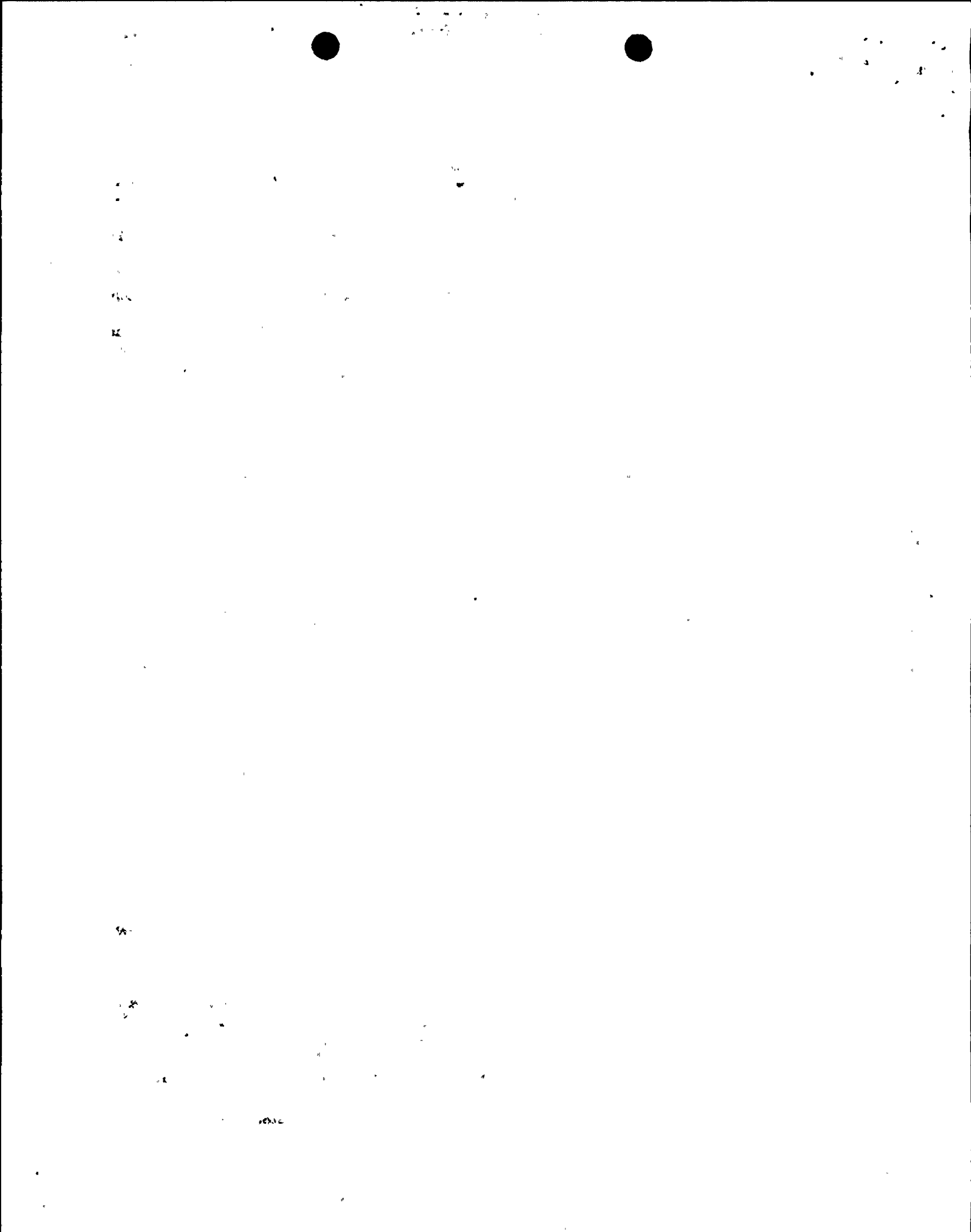
MONTHLY AVG			4.6	NO DISCHARGE	NO DISCHARGE		NO DISCHARGE	NO DISCHARGE
MONTHLY HIGH			5.6					
MONTHLY LOW			3					

TIMES EXCEEDED	NO LIMIT	NO LIMIT	NO AVG 15 =0	NO AVG 15 =0	NO AVG 15 =0	NO 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  
JAMES D. SHIFFER

SIGNATURE OF AUTHORIZED AGENT DATE  
*John R. Krenn* 7/17/90



CALIFORNIA REGIONAL WATER QUALITY  
CONTROL BOARD  
CENTRAL COAST REGION  
1102A LAUREL LANE  
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 90 / 06 / 01      YEAR/ MO / DAY ENDING 90 / 06 / 30      STATE CODE 06      NPDES PERMIT # CA0003751

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

JUNE	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
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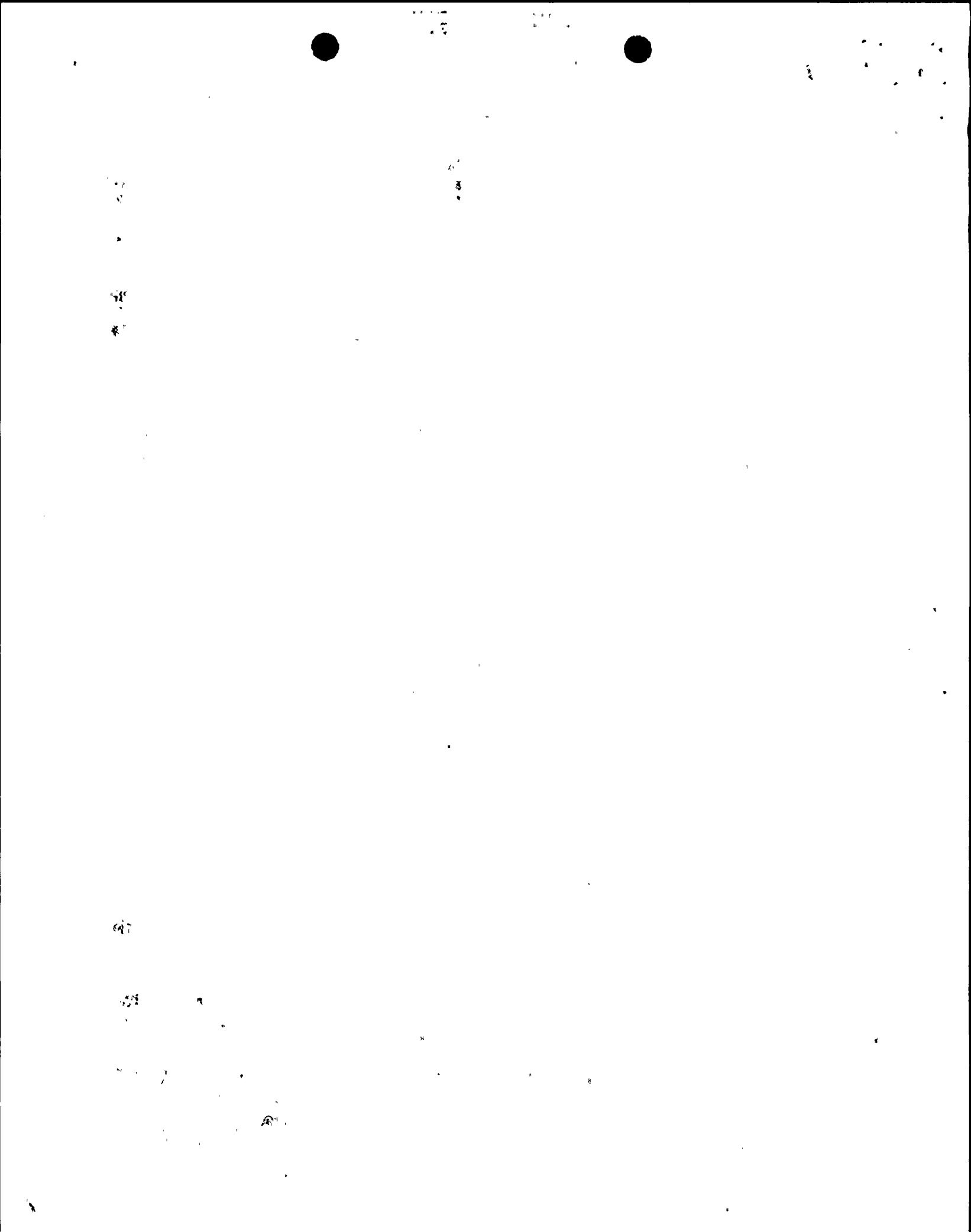
MONTHLY AVG	NO DISCHARGE	NO DISCHARGE																								
MONTHLY HIGH																										
MONTHLY LOW																										

TIMES EXCEEDED	80% SMPLS>1K	MEAN>200=0	NO LIMIT	NO LIMIT	MO AVG 30= 0	NO LIMIT	NO LIMIT	MO AVG 30 =0																		
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TIMES EXCEEDED	1 MAX >10K=0	=0																								

REMARKS: (\*) Number of Samples taken during the day. \_\_\_\_\_

PRINCIPAL EXECUTIVE OFFICER  
**JAMES D. SHIFFER**

SIGNATURE OF AUTHORIZED AGENT      DATE  
*John R. Kuemmer*      7/17/90







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CALIFORNIA REGIONAL WATER QUALITY  
CONTROL BOARD  
CENTRAL COAST REGION  
1102A LAUREL LANE  
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 90 / 06 / 01

YEAR/ MO / DAY  
ENDING 90 / 06 / 30

STATE CODE  
06

NPDES PERMIT #  
CA0003751

STATION ANALYSIS UNITS SMPL TYPE FREQ.	-----EFFLUENT 001I-----			-----EFFLUENT 001J-----		
	SUSPENDED SOLIDS			SUSPENDED SOLIDS		
	mg/l 1st FLTR	mg/l 2nd FLTR	mg/l NET	mg/l 1st FLTR	mg/l 2nd FLTR	mg/l NET

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MONTHLY LOW							
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TIMES EXCEEDED			D MAX 100 =0			D MAX 100 =0	D MAX 100 =0
TIMES EXCEEDED							

REMARKS: (‡) Number of Samples taken during the day. \_\_\_\_\_

PRINCIPAL EXECUTIVE OFFICER  
JAMES D. SHIFFER

SIGNATURE OF AUTHORIZED AGENT DATE  
*John R. Krenn* 7/17/90



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CALIFORNIA REGIONAL WATER QUALITY  
CONTROL BOARD  
CENTRAL COAST REGION  
1102A LAUREL LANE  
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 90 / 06 / 01      YEAR/ MO / DAY ENDING 90 / 06 / 30      STATE CODE 06      NPDES PERMIT # CA0003751

STATION ANALYSIS UNITS SKPL TYPE FREQ.	-----EFFLUENT 001K-----			-----EFFLUENT 001L-----		
	SUSPENDED SOLIDS			SUSPENDED SOLIDS		
	mg/l 1st FLTR	mg/l 2nd FLTR	mg/l NET	mg/l 1st FLTR	mg/l 2nd FLTR	mg/l NET

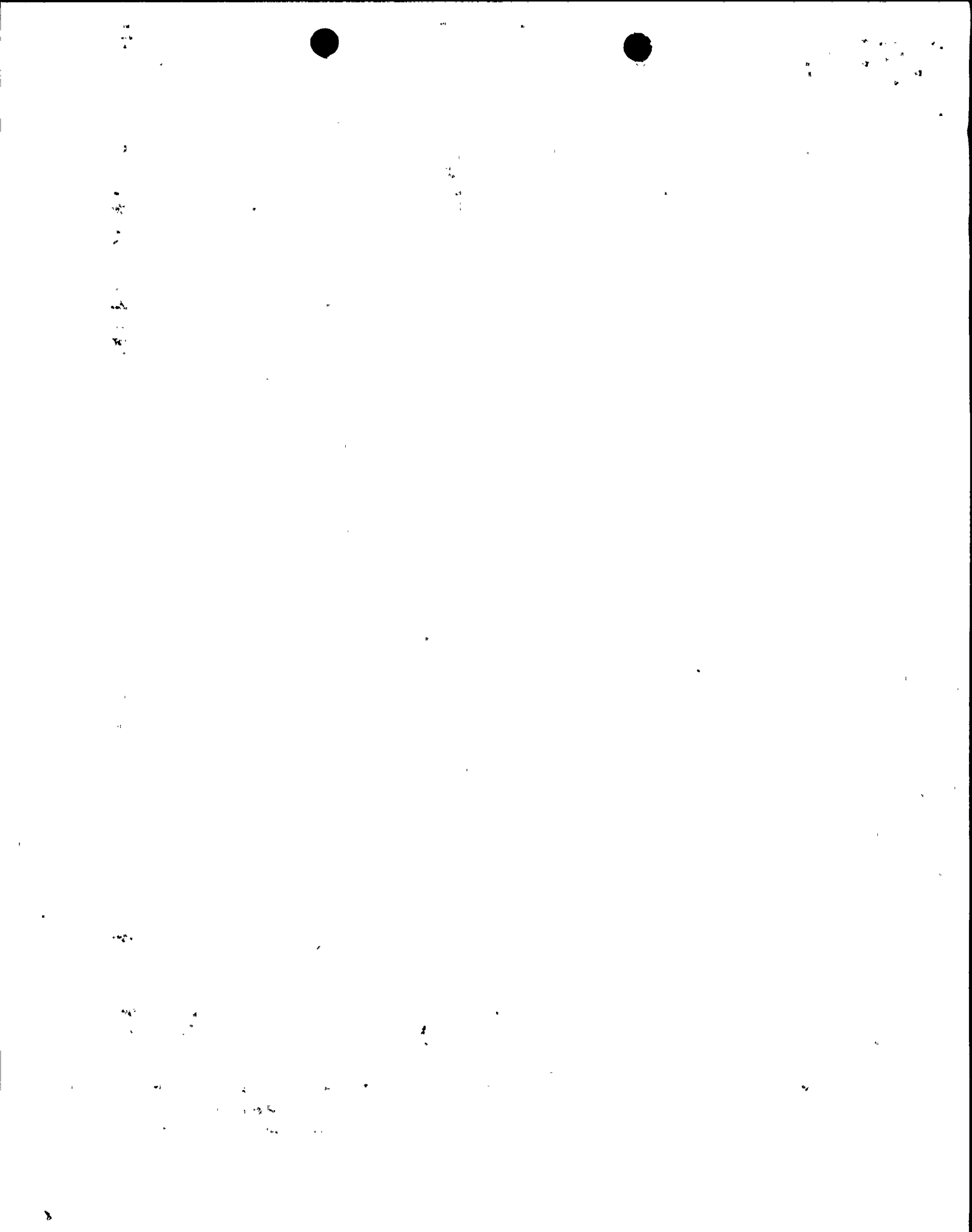
JUNE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
														<1	<1																

MONTHLY AVG	NO DISCHARGE	NO DISCHARGE	NO DISCHARGE																											
MONTHLY HIGH																														
MONTHLY LOW																														
TIMES EXCEEDED	NO LIMIT	NO LIMIT	NO AVG 30 =0	NO LIMIT	NO LIMIT	NO 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  
JAMES D. SHIFFER

SIGNATURE OF AUTHORIZED AGENT      DATE  
*John R. Krenn*      7/17/90



CALIFORNIA REGIONAL WATER QUALITY  
 CONTROL BOARD  
 CENTRAL COAST REGION  
 1102A LAUREL LANE  
 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) 7

FACILITY I.D.  
 3 402003001

YEAR/ MO / DAY  
 BEGINNING 90 / 06 / 01

YEAR/ MO / DAY  
 ENDING 90 / 06 / 30

STATE CODE  
 06

NPDES PERMIT #  
 CA0003751

STATION ANALYSIS UNITS SNPL TYPE FREQ.	-----EFFLUENT 001M----- SUSPENDED SOLIDS			EFFLUENT 001N SUSPENDED SLDS	-----EFFLUENT 001P----- SUSPENDED SOLIDS		
	mg/l 1st FLTR	mg/l 2nd FLTR	mg/l NET	mg/l	mg/l 1st FLTR	mg/l 2nd FLTR	mg/l NET
	GRAB MONTHLY			COMPOSITE WEEKLY	GRAB MONTHLY		
JUNE	‡	‡	‡	‡	‡	‡	‡
1	20	NO ANALYSIS	20				
2							
3							
4							
5							
6							
7							
8				29			
9							
10					13	13	<1
11							
12				16			
13							
14							
15							
16							
17							
18							
19							
20				25			
21							
22							
23							
24							
25							
26				38			
27							
28							
29	6	4	2				
30							
31							
MONTHLY AVG			11	27			
MONTHLY HIGH			20	38			
MONTHLY LOW			2	16			
TIMES EXCEEDED	NO LIMIT	NO LIMIT	MD AVG 30 =0	MD AVG 60 =0	NO LIMIT	NO LIMIT	MD 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  
 JAMES D. SHIFFER

SIGNATURE OF AUTHORIZED AGENT DATE  
*John R. Knevez* 7/17/90

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
 CENTRAL COAST REGION  
 1102A LAUREL LANE  
 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 90 / 06 / 01 YEAR/ MO / DAY ENDING 90 / 06 / 30 STATE CODE 06 NPDES PERMIT # CA0003751

STATION ANALYSIS UNITS SMPL TYPE FREQ.	-----EFFLUENT 002-----			-----EFFLUENT 003-----		
	SUSPENDED SOLIDS					
	mg/l 1st FLTR	mg/l 2nd FLTR	mg/l NET	mg/l 1st FLTR	mg/l 2nd FLTR	mg/l NET

	‡	‡	‡	‡	‡	‡	‡	‡	‡	‡
JUNE										
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4										
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6										
7										
8										
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11	2	29	2	8	2	21	11	7	4	
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31										

MONTHLY AVG	21			21			21		
MONTHLY HIGH	21			21			21		
MONTHLY LOW	21			21			21		

TIMES EXCEEDED	NO LIMIT	NO LIMIT	NO AVG 30 =0	NO LIMIT	NO LIMIT	NO AVG 30 =0
TIMES EXCEEDED			I MAX 100 =0			I MAX 100 =0
TIMES EXCEEDED						

REMARKS: (‡) Number of Samples taken during the day.

PRINCIPAL EXECUTIVE OFFICER  
 JAMES D. SHIFFER

SIGNATURE OF AUTHORIZED AGENT DATE  
*John R. Krenn* 7/17/90

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FACILITY I.D.  
3 402003001

YEAR/ MO / DAY  
BEGINNING 90 / 06 / 01

YEAR/ MO / DAY  
ENDING 90 / 06 / 30

STATE CODE  
06

NPDES PERMIT #  
CA0003751

STATION ANALYSIS UNITS SMPL TYPE FREQ.	-----EFFLUENT 003-----			EFFLUENT 001N	EFFLUENT 001	EFFLUENT 001	EFFLUENT 001	EFFLUENT 001
	SUSPENDED SOLIDS			SETTL SOLIDS	T CHROMIUM	COPPER	NICKEL	ZINC
	mg/l 1st FLTR	mg/l 2nd FLTR	mg/l NET	m/l	ug/l	ug/l	ug/l	ug/l
	GRAB			GRAB	GRAB	GRAB	GRAB	GRAB
	WEEKLY WHEN 001N & 001P => 003			WEEKLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY

JUNE	#	#	#	#	#	#	#	#	#	#
1						<3	<1	<1		2
2										
3										
4										
5										
6										
7										
8					<0.05					
9										
10										
11										
12					<0.05					
13										
14										
15										
16										
17										
18										
19										
20					<0.05					
21										
22										
23										
24										
25										
26					<0.05					
27										
28										
29										
30										
31										

MONTHLY AVG	NO DISCHARGE	NO DISCHARGE	NO DISCHARGE							
MONTHLY HIGH										
MONTHLY LOW										

TIMES EXCEEDED	NO LIMIT	NO LIMIT	MO AVG 30 =0	MO AVG 1.0 =0	6M-MEAN 10 =0	6M-MEAN 30 =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 50 =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  
JAMES D. SHIFFER

SIGNATURE OF AUTHORIZED AGENT  
*John Krenn*  
DATE  
7/1/90

11 12 13 14 15

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CALIFORNIA REGIONAL WATER QUALITY  
CONTROL BOARD  
CENTRAL COAST REGION  
1102A LAUREL LANE  
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 (B) 1

FACILITY I.D. 3 402003001  
YEAR/ MO / DAY BEGINNING 90 / 06 / 01  
YEAR/ MO / DAY ENDING 90 / 06 / 30  
STATE CODE 06  
HPDES 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
----------------------------------------	---------------------------------------------	-----------------------------------------	-----------------------------------------	----------------------------------------------	--------------------------------------------------	----------------------------------------------------	----------------------------------------------------	----------------------------------------------------

JUNE	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
	<3		<1		<1																										

MONTHLY AVG																														
MONTHLY HIGH																														
MONTHLY LOW																														

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  
JAMES D. SHIFFER

SIGNATURE OF AUTHORIZED AGENT DATE  
*John R. Krenn* 7/7/90

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CALIFORNIA REGIONAL WATER QUALITY  
CONTROL BOARD  
CENTRAL COAST REGION  
1102A LAUREL LANE  
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 (B) 2

FACILITY I.D.  
3 402003001

YEAR/ MO / DAY  
BEGINNING 90 / 06 / 01

YEAR/ MO / DAY  
ENDING 90 / 06 / 30

STATE CODE  
06

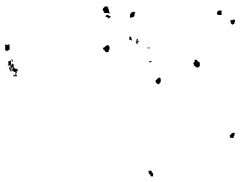
NPDES PERMIT #  
CA0003751

STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 001I OIL & GREASE mg/l GRAB JA/AP/JUL/OCT	EFFLUENT 001J OIL & GREASE mg/l GRAB JA/AP/JUL/OCT	EFFLUENT 001K OIL & GREASE mg/l GRAB JA/AP/JUL/OCT	EFFLUENT 001L OIL & GREASE mg/l GRAB JA/AP/JUL/OCT	EFFLUENT 001M OIL & GREASE mg/l GRAB JA/AP/JUL/OCT	EFFLUENT 001P OIL & GREASE mg/l GRAB JA/AP/JUL/OCT	EFFLUENT 002 OIL & GREASE mg/l GRAB JA/AP/JUL/OCT	EFFLUENT 003 OIL & GREASE mg/l GRAB JA/AP/JUL/OCT
JUNE	‡	‡	‡	‡	‡	‡	‡	‡
1					<3			
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29								
30						<3		
31								
MONTHLY AVG						<3		
MONTHLY HIGH						<3		
MONTHLY LOW						<3		
TIMES EXCEEDED	MO AVG 15 =0	MO AVG 15 =0	MO AVG 15 =0	MO AVG 15 =0	MO AVG 15 =0	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	D MAX 20 =0	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.

PRINCIPAL EXECUTIVE OFFICER  
JAMES D. SHIFFER

SIGNATURE OF AUTHORIZED AGENT DATE  
*John R. Krenney* 7/17/90



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CALIFORNIA REGIONAL WATER QUALITY  
CONTROL BOARD  
CENTRAL COAST REGION  
1102A LAUREL LANE  
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 (A) 1

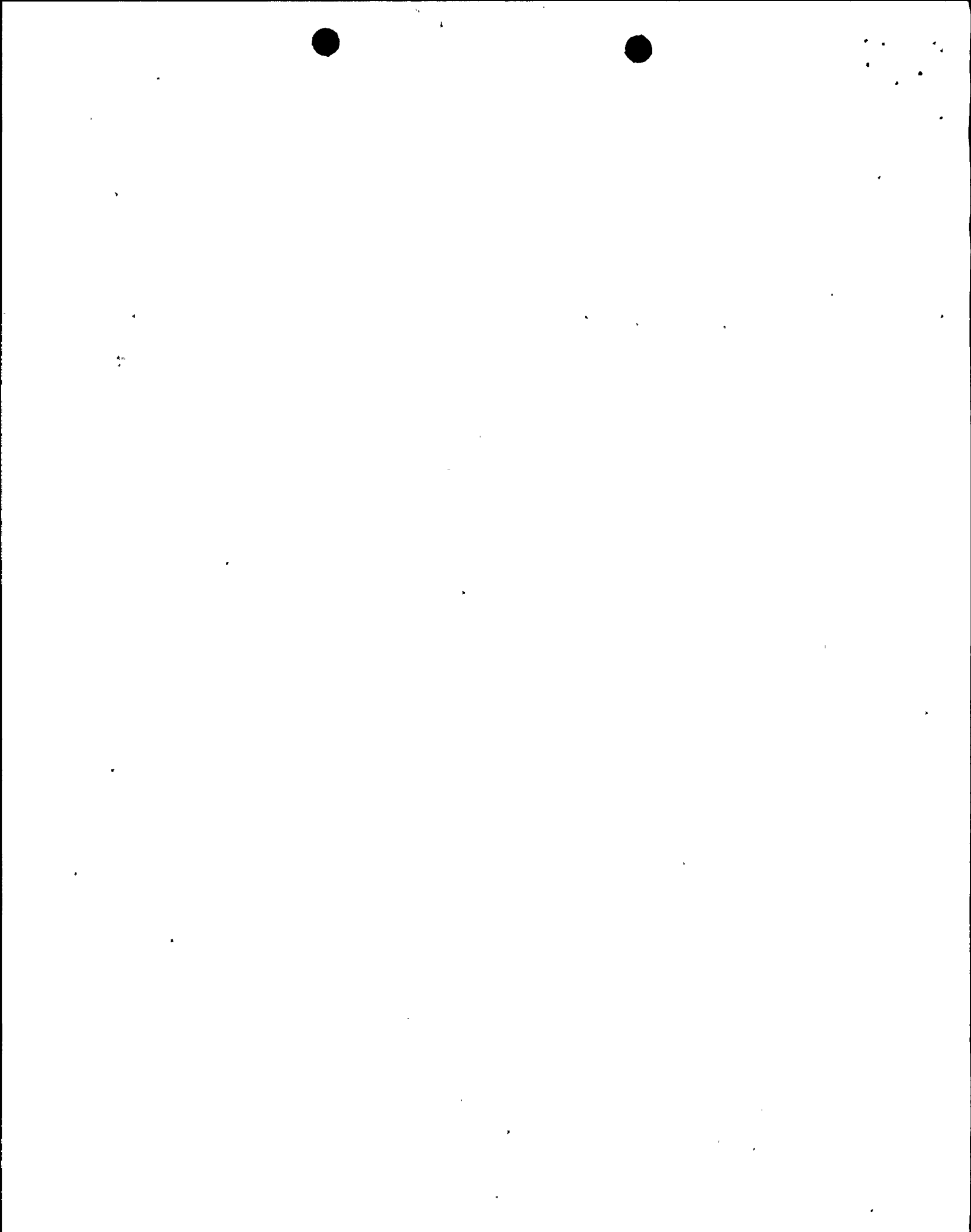
FACILITY I.D. 3 402003001  
YEAR/ MO / DAY BEGINNING 90 / 06 / 01  
YEAR/ MO / DAY ENDING 90 / 06 / 30  
STATE CODE 06  
NPDES PERMIT # CA0003751

STATION ANALYSIS UNITS SMPL TYPE FREQ.	EFFLUENT 001 TITANIUM ug/l GRAB OCTOBER	INFLUENT ARSENIC ug/l GRAB OCTOBER	EFFLUENT ARSENIC ug/l GRAB OCTOBER	INFLUENT CADMIUM ug/l GRAB OCTOBER	EFFLUENT 001 CADMIUM ug/l GRAB OCTOBER	INFLUENT LEAD ug/l GRAB OCTOBER	EFFLUENT 001 LEAD ug/l GRAB OCTOBER
JUNE	‡	‡	‡	‡	‡	‡	‡
1	<50						
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31							
MONTHLY AVG							
MONTHLY HIGH							
MONTHLY LOW							
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.

PRINCIPAL EXECUTIVE OFFICER  
JAMES D. SHIFFER

SIGNATURE OF AUTHORIZED AGENT DATE  
*John R. Krenn* 7/17/90





APPENDIX 2

Stratified Water Temperatures  
Data for June 1990

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DIABLO CANYON POWER PLANT  
OCEANOGRAPHY STATIONS  
STRATIFIED WATER TEMPERATURES

19 June, 1990

On June 19, 1990 between the hours of 0650 - 0850 PST vertical temperature profiles were measured in the vicinity of Diablo Canyon Power Plant. During the sampling period sea conditions were rough with 6/8 foot swell and 2/4 foot wind chop. Winds were out of the northwest at 10/20 mph. Skies were overcast with an air temperature of approximately 53 degrees Fahrenheit.

Due to changes in the NPDES discharge permit (effective June 1, 1990) only stations inside Diablo Cove require measuring (Figure 1). Temperature measurements were made with a TSK America electronic bathythermograph (MICOM-BT). The MICOM-BT is a self-contained underwater unit which measures temperature using a pressure independent temperature sensor. The sensor has a response time of 0.25 seconds and is accurate to  $\pm 0.10$  degrees F ( $\pm 0.05$  degrees C). A pressure transducer with an accuracy of 0.3% (full scale) is used to determine instrument depth. Temperature and depth data are reported at one meter intervals. The data are stored in an internal memory then retrieved using a photomagnetic coupler and a Compaq computer. Reference temperatures were measured at the surface with a thermometer traceable to the National Bureau of Standards.

Water temperatures ranged from a high of 60.3 degrees F on the surface at station 10 to a low of 50.7 degrees F on the bottom at stations 11 and 12. Profiles measured in the west entrance of Diablo cove varied as much as 9.5 degrees F from surface to bottom (see the tables). Profiles measured in the north entrance of Diablo cove were much more uniform from surface to bottom. Stratification of the water column is present due to the influence of the discharge plume. Temperature profiles measured in June 1990 show lower temperatures when compared to profiles measured in June 1989.



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DIABLO CANYON POWER PLANT  
OCEANOGRAPHY STATIONS  
STRATIFIED WATER TEMPERATURES

19 June, 1990

Station 10

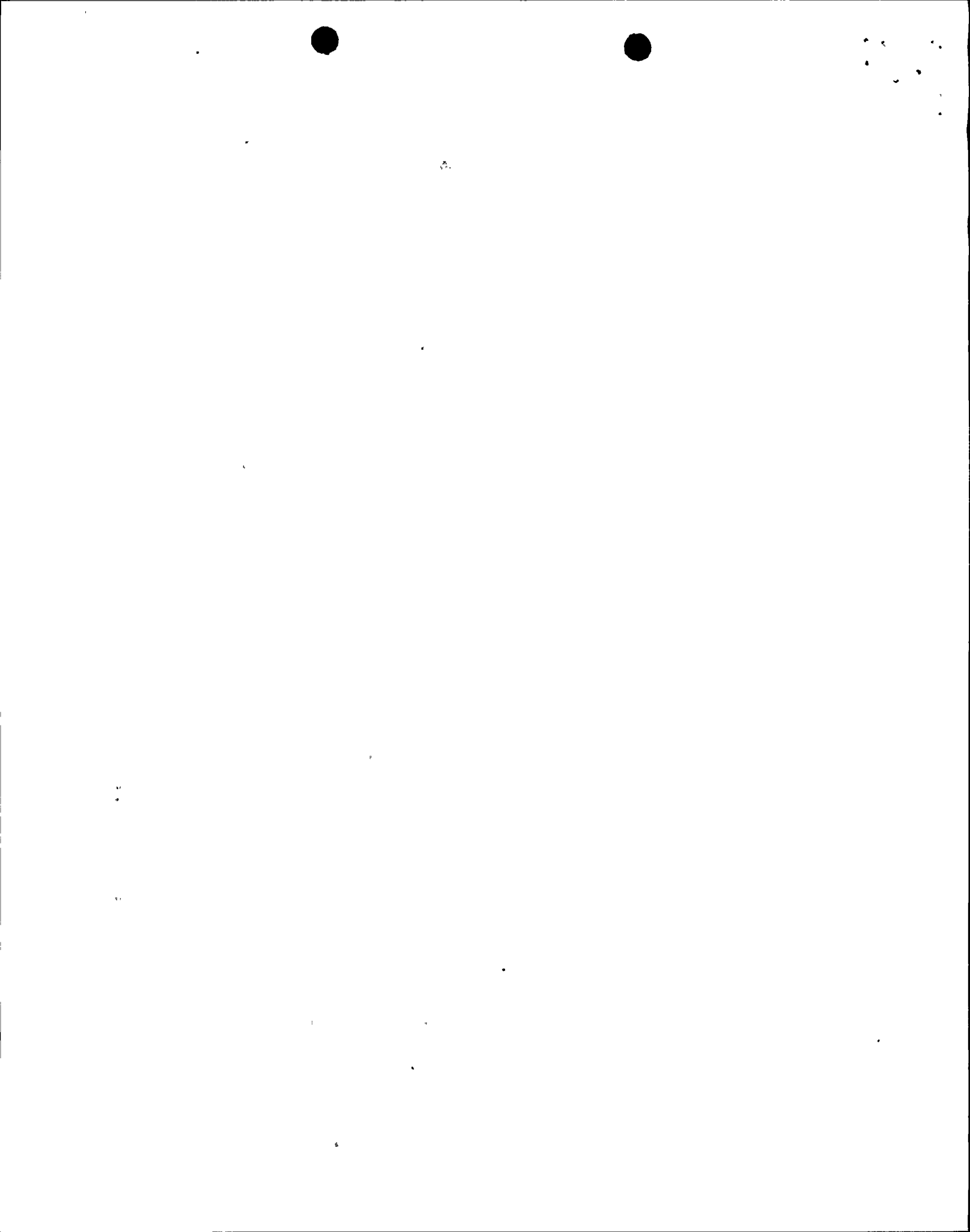
DEPTH(m)	TEMP(°F)
0.0	60.3
1.0	59.7
2.0	57.8
3.0	55.9
4.0	55.2
5.0	53.5
6.0	51.6
7.0	50.8
8.0	50.8

DIABLO CANYON POWER PLANT  
OCEANOGRAPHY STATIONS  
STRATIFIED WATER TEMPERATURES

19 June, 1990

Station 11

DEPTH(m)	TEMP(°F)
0.0	59.6
1.0	57.8
2.0	57.7
3.0	57.5
4.0	57.1
5.0	57.1
6.0	53.9
7.0	52.1
8.0	51.0
9.0	50.8
10.0	50.7
11.0	50.7
12.0	50.7
13.0	50.7



DIABLO CANYON POWER PLANT  
OCEANOGRAPHY STATIONS  
STRATIFIED WATER TEMPERATURES

19 June, 1990

Station 12

DEPTH(m)	TEMP(*F)
0.0	58.8
1.0	58.2
2.0	57.7
3.0	57.2
4.0	55.9
5.0	52.4
6.0	51.9
7.0	50.8
8.0	50.8
9.0	50.8
10.0	50.8
11.0	50.8
12.0	50.8
13.0	50.7
14.0	50.7
15.0	50.7
16.0	50.7
17.0	50.7

DIABLO CANYON POWER PLANT  
OCEANOGRAPHY STATIONS  
STRATIFIED WATER TEMPERATURES

19 June, 1990

Station 13

DEPTH(m)	TEMP(*F)
0.0	58.1
1.0	57.6
2.0	57.1
3.0	56.6
4.0	55.9
5.0	55.6
6.0	55.5
7.0	53.0
8.0	51.7



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DIABLO CANYON POWER PLANT  
OCEANOGRAPHY STATIONS  
STRATIFIED WATER TEMPERATURES

19 June, 1990

Station 14

DEPTH(m)	TEMP(°F)
0.0	56.7
1.0	56.2
2.0	56.2
3.0	56.1
4.0	56.2
5.0	56.2
6.0	56.1
7.0	56.1
8.0	56.0

DIABLO CANYON POWER PLANT  
OCEANOGRAPHY STATIONS  
STRATIFIED WATER TEMPERATURES

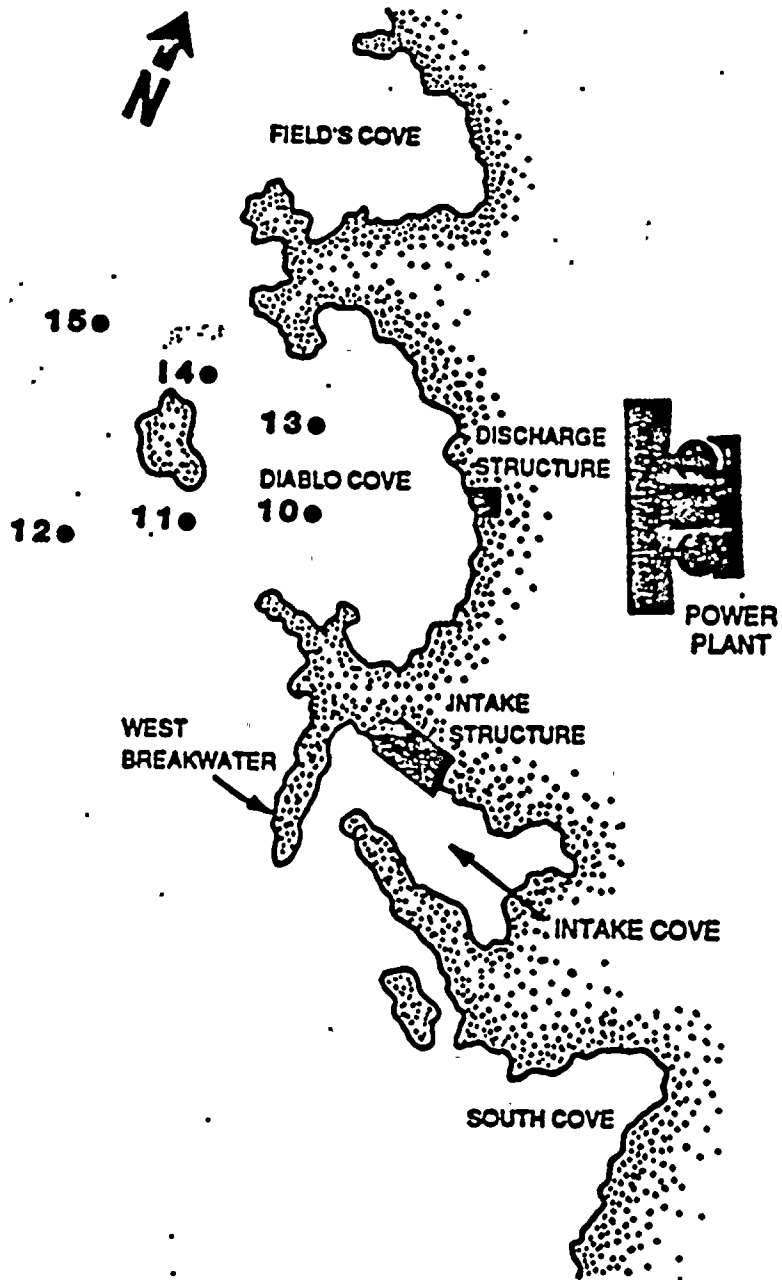
19 June, 1990

Station 15

DEPTH(m)	TEMP(°F)
0.0	55.4
1.0	56.2
2.0	56.2
3.0	56.1
4.0	56.2
5.0	56.2
6.0	56.1
7.0	56.1
8.0	56.0

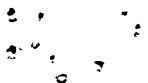


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**WATER TEMPERATURE, pH, AND DISSOLVED OXYGEN  
SAMPLE LOCATIONS**

**FIGURE 1**



APPENDIX 3

Dissolved Oxygen and pH of Receiving Waters  
Data for June 1990

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DIABLO CANYON POWER PLANT  
OCEANOGRAPHY STATIONS  
pH MEASUREMENTS and  
DISSOLVED OXYGEN DETERMINATIONS  
of RECEIVING WATERS

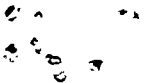
19 June, 1990

On June 19, 1990 between the hours of 0650 - 0850 PST seawater samples were collected in the vicinity of Diablo Canyon Power Plant to determine pH and dissolved oxygen concentrations. During the sampling period seastate was rough with 6/8 foot swell and 2/4 foot wind chop. Winds were out of the northwest at 10/20 mph. Skies were overcast with an air temperature of approximately 53 degrees Fahrenheit.

Due to changes in the renewed NPDES discharge permit (effective June 1, 1990) only stations inside Diablo cove require sampling. Samples were collected at six stations inside the discharge cove (Figure 1) at the surface, mid-depth and near the bottom. A hydrocast array of Van-Dorn bottles was used to collect the samples.

Dissolved oxygen samples were immediately preserved using manganous sulfate and alkaline iodide-azide. Samples were then transported to the onsite Oceanography Laboratory for processing. Dissolved oxygen concentrations were determined using a modified Winkler Titration method. Values (Table 1) ranged from a high of 7.8 ppm at the surface of station 13 to a low of 4.4 ppm at the bottom of station 11. Dissolved oxygen values measured in June 1990 were found to be much more uniform and slightly lower than those measured in June 1989.

All pH levels were measured using an Orion model 701A pH meter. Values (Table 2) were found to be fairly uniform throughout the water column at all stations ranging from a high of 7.9 to a low of 7.7. June 1990 pH values were found to be slightly less than pH values measured in June 1989.



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DIABLO CANYON POWER PLANT  
OCEANOGRAPHY STATIONS  
DISSOLVED OXYGEN DETERMINATIONS

19 June, 1990

Station	Surface	Mid-water	Bottom
10	7.2	6.0	5.8
11	7.0	5.8	4.4
12	7.0	5.2	5.6
13	7.8	7.4	5.6
14	6.8	7.0	7.05
15	7.4	7.2	6.0

Table One

DIABLO CANYON POWER PLANT  
OCEANOGRAPHY STATIONS  
pH MEASUREMENTS

19 June, 1990

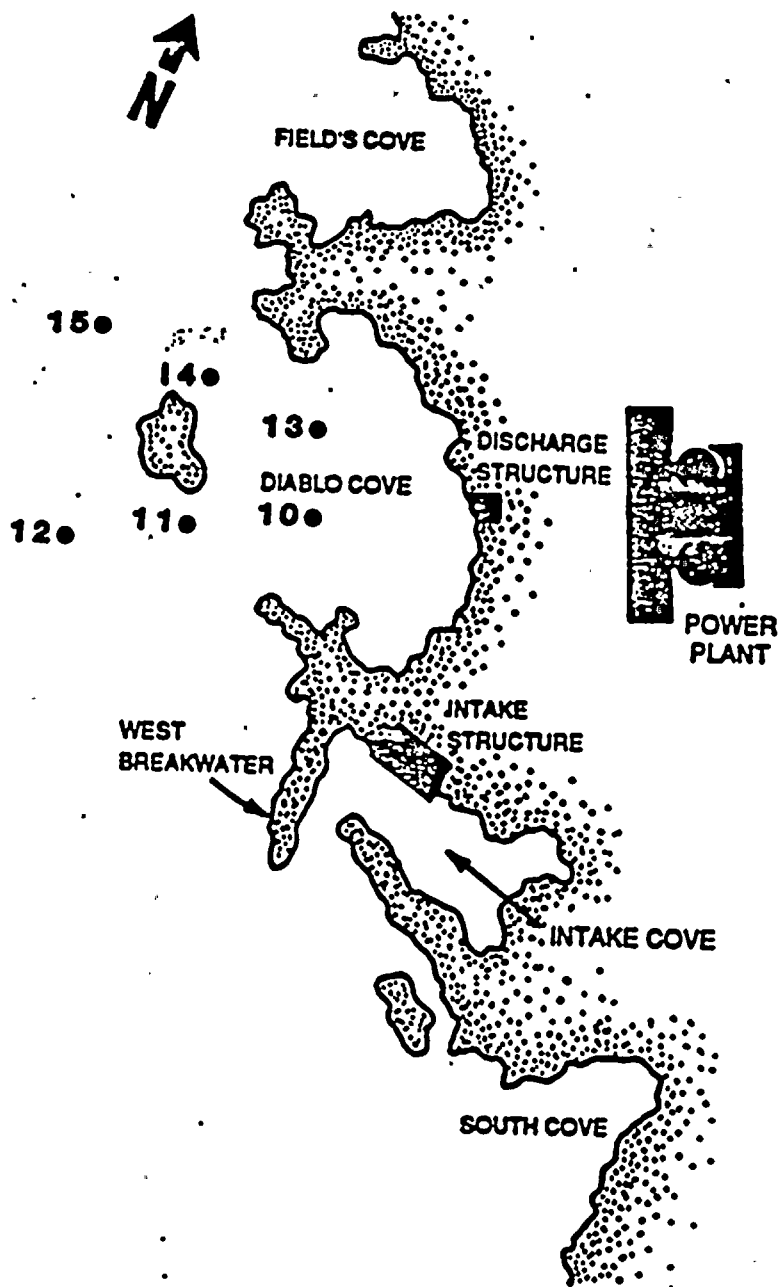
Station	Surface	Mid-water	Bottom
10	7.9	7.9	7.8
11	7.7	7.7	7.7
12	7.9	7.8	7.8
13	7.9	7.9	7.9
14	7.9	7.9	7.9
15	7.9	7.9	7.9

Table Two



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**WATER TEMPERATURE, pH, AND DISSOLVED OXYGEN  
SAMPLE LOCATIONS**

**FIGURE 1**



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