



SAN DIEGO REGIONAL
WATER QUALITY
CONTROL BOARD

2009 SEP 30 P 1:52

South Bay Power Plant
990 Bay Blvd
Chula Vista, CA 91911-1651
619.498.5200 Office
619.498.5287 Fax

September 30, 2009

California Regional Water Quality
Control Board - San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123

Attn: Executive Officer

Dear Mr. Robertus,

Pursuant to Order No.R9-2004-0154 (NPDES No. CA0001368), Monitoring and Reporting Program paragraph G1, we are herewith submitting the discharge monitoring report for the South Bay Power Plant. The report is for the month of August 2009. There were no exceedances for the month of August 2009.

The enclosed report demonstrates that the South Bay Power Plant complied with its final effluent limits for copper (3.53 ug/l average monthly; 4.44 ug/l daily maximum) using EPA Method 1638.

A copy of the DMR report has been forwarded to the State Water Resources Control Board.

If you have any questions regarding this report, please contact Tom Liebst at (619) 498-5223.

Sincerely,

A handwritten signature in black ink, appearing to read "Leonard J. Cigainero".

Leonard J. Cigainero
Plant Manager

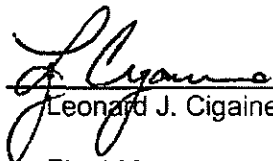
LJC:tel
403.40.01
EHS 09-084

Dynegy South Bay LLC

I hereby submit the August 2009 Discharge Monitoring Report(s) for the SOUTH BAY POWER PLANT in accordance with the Waste Discharge Requirements prescribed in Regional Board Order No. R9-2004-0154.

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. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violation.

Signature:


Leonard J. Cigainero

Title:

Plant Manager

Date:

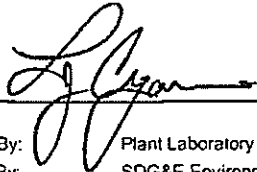
September 30, 2009

Pursuant to Order No. R9-2004-0154 reporting requirement 14(a), the following representative is authorized to sign and certify all reports required by this order:

1. Plant Manager

DYNEGY SOUTH BAY LLC - MONTHLY REPORT

Order No: R9-2004-0154
 Report Freq: Monthly
 Report For: August, 2009
 Report Due: September, 2009

Signed 
 Collected By: Plant Laboratory Personnel
 Analyzed By: SDG&E Environmental Lab

WASTESTREAM NAME: Combined Discharge - Property Line, S2
 PARAMETER NAME: OIL & GREASE, n-hexane extractable material method

UNITS	SAMPLE TYPE	REQ'T TYPE	REQ'T VALUE	RESULT	COMMENTS
MG/L	GRAB	--	--	1.6	
LB/DAY	GRAB	--	--	4992	

WASTESTREAM NAME: Combined Discharge - Property Line, S2
 PARAMETER NAME: RESIDUE, non-filterable (TSS)

UNITS	SAMPLE TYPE	REQ'T TYPE	REQ'T VALUE	RESULT	COMMENTS
MG/L	GRAB	--	--	7.5	
LB/DAY	GRAB	--	--	23400	

WASTESTREAM NAME: Cooling Water Inlet
 PARAMETER NAME: RESIDUE, non-filterable (TSS)

UNITS	SAMPLE TYPE	REQ'T TYPE	REQ'T VALUE	RESULT	COMMENTS
MG/L	GRAB	--	--	8.3	
LB/DAY	GRAB	--	--	25896	

WASTESTREAM NAME: Combined Discharge - Property Line, S2
 PARAMETER NAME: pH

UNITS	SAMPLE TYPE	REQ'T TYPE	REQ'T VALUE	RESULT	COMMENTS
pH	GRAB	--	6.0 - 9.0	7.86 - 8.12	

WASTESTREAM NAME: Cooling Water Intake
 PARAMETER NAME: pH

UNITS	SAMPLE TYPE	REQ'T TYPE	REQ'T VALUE	RESULT	COMMENTS
pH	GRAB	--	6.0 - 9.0	7.88 - 8.15	

WASTESTREAM NAME: Cooling Water Effluent - Weather Station, S1
 PARAMETER NAME: pH

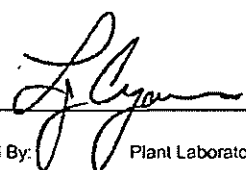
UNITS	SAMPLE TYPE	REQ'T TYPE	REQ'T VALUE	RESULT	COMMENTS
pH	GRAB	--	6.0 - 9.0	7.86 - 8.18	

WASTESTREAM NAME: Combined Discharge
 PARAMETER NAME: CHLORINE, TOTAL RESIDUAL - Hach DPD Method

METHOD	MDL	PQL
mg/l	0.04	0.4

DYNEGY SOUTH BAY LLC - MONTHLY REPORT

Facility Name: South Bay Power Plant
 Order No: R9-2004-0154
 Report Freq: Monthly
 Report For: August, 2009
 Report Due: September, 2009

Signed 
 Collected By: Plant Laboratory Personnel
 Analyzed By: SDG&E Environmental Lab

WASTESTREAM NAME: Cooling Water Inlet
 PARAMETER NAME: COPPER, TOTAL RECOVERABLE

UNITS	SAMPLE TYPE	REQ'T TYPE	REQT VALUE	RESULT	COMMENTS
UG/L	COMP 24	--	--	2.40	
LB/DAY	COMP 24	--	--	5.18	

WASTESTREAM NAME: Combined Discharge - Property Line, S2
 PARAMETER NAME: COPPER, TOTAL RECOVERABLE

UNITS	SAMPLE TYPE	REQ'T TYPE	REQT VALUE	RESULT	COMMENTS
UG/L	COMP 24	--	--	2.52	
LB/DAY	COMP 24	--	--	5.44	

DYNEGY SOUTH BAY LLC - MONTHLY REPORT

ADDENDUM 1

Facility Name: South Bay Power Plant
Order No: R9-2004-0154
Report Freq: Monthly
Report For: August, 2009
Report Due: September, 2009

Signed 
Collected By: SOG&E Environmental Lab
Analyzed By: SOG&E Environmental Lab

TOTAL RESIDUAL CHLORINE RESULTS

Date: 8/6/09 Station: Combined Discharge (S2, Property Line)

<u>Sample Time</u>	<u>Result (ug/l)</u>
12:25	<40
12:50	<40
13:15	<40
0:00	0

Date: 8/13/09 Station: Combined Discharge (S2, Property Line)

<u>Sample Time</u>	<u>Result (ug/l)</u>
12:25	<40
12:50	<40
13:15	<40
13:40	<40

Date: 8/20/09 Station: Combined Discharge (S2, Property Line)

<u>Sample Time</u>	<u>Result (ug/l)</u>
12:25	40
12:50	<40
13:15	<40
13:40	<40

Date: 8/27/09 Station: Combined Discharge (S2, Property Line)

<u>Sample Time</u>	<u>Result (ug/l)</u>
12:25	40
12:50	<40
13:15	<40
13:40	<40

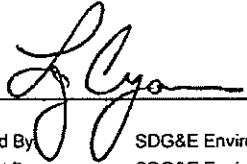
Date: 1/0/1900 Station: Combined Discharge (S2, Property Line)

<u>Sample Time</u>	<u>Result (ug/l)</u>
0:00	0
0:00	0
0:00	0
0:00	0

DYNEGY SOUTH BAY LLC - MONTHLY REPORT

ADDENDUM 1

Facility Name: South Bay Power Plant
Order No: R9-2004-0154
Report Freq: Monthly
Report For: August, 2009
Report Due: September, 2009

Signed 
Collected By: SDG&E Environmental Lab
Analyzed By: SDG&E Environmental Lab

TOTAL RESIDUAL CHLORINE RESULTS

Date: 8/6/09 Station: Cooling Water Effluent (S1, Weather Station)

<u>Sample Time</u>	<u>Result (ug/l)</u>
12:30	<40
12:55	<40
13:20	<40
0:00	0

Date: 8/13/09 Station: Cooling Water Effluent (S1, Weather Station)

<u>Sample Time</u>	<u>Result (ug/l)</u>
12:30	<40
12:55	<40
13:20	<40
13:45	<40

Date: 8/20/09 Station: Cooling Water Effluent (S1, Weather Station)

<u>Sample Time</u>	<u>Result (ug/l)</u>
12:30	40
12:55	<40
13:20	<40
13:45	<40

Date: 8/27/09 Station: Cooling Water Effluent (S1, Weather Station)

<u>Sample Time</u>	<u>Result (ug/l)</u>
12:30	40
12:55	<40
13:20	40
13:45	<40

Date: 1/0/1900 Station: Cooling Water Effluent (S1, Weather Station)

<u>Sample Time</u>	<u>Result (ug/l)</u>
0:00	0
0:00	0
0:00	0
0:00	0

DYNEGY SOUTH BAY LLC - MONTHLY REPORT

ADDENDUM 1

Facility Name: South Bay Power Plant
 Order No: R9-2004-0154
 Report Freq: Monthly
 Report For: August, 2009
 Report Due: September, 2009

Signed 
 Collected By: SDG&E Environmental Lab
 Analyzed By: SDG&E Environmental Lab

TOTAL RESIDUAL CHLORINE RESULTS

Date: 8/6/09 Station: Cooling Water Intake

<u>Sample Time</u>	<u>Result (ug/l)</u>
12:15	<40
12:40	<40
13:05	<40
0:00	0

Date: 8/13/09 Station: Cooling Water Intake

<u>Sample Time</u>	<u>Result (ug/l)</u>
12:15	<40
12:40	<40
13:05	<40
13:30	<40

Date: 8/20/09 Station: Cooling Water Intake

<u>Sample Time</u>	<u>Result (ug/l)</u>
12:15	<40
12:40	<40
13:05	<40
13:30	<40

Date: 8/27/09 Station: Cooling Water Intake

<u>Sample Time</u>	<u>Result (ug/l)</u>
12:15	<40
12:40	<40
13:05	<40
13:30	<40

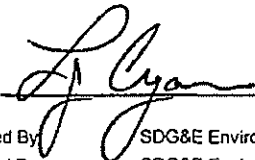
Date: 1/0/1900 Station: Cooling Water Intake

<u>Sample Time</u>	<u>Result (ug/l)</u>
0:00	0
0:00	0
0:00	0
0:00	0

DYNEGY SOUTH BAY LLC - MONTHLY REPORT

ADDENDUM 1

Facility Name: South Bay Power Plant
 Order No: R9-2004-0154
 Report Freq: Monthly
 Report For: August, 2009
 Report Due: September, 2009

Signed 
 Collected By: SDG&E Environmental Lab
 Analyzed By: SDG&E Environmental Lab

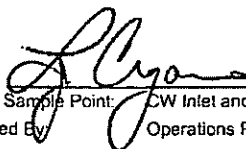
Receiving Water Metals

	Reporting	Sample Stations												
	Limit	A3	C3	D4	E3	E4	E5	E7	F2	F3	F4	N2	S1	
	ug/L													
Silver	0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Arsenic	1.0	5.6	1.8	2.6	2.5	4.2	3.0	2.4	3.7	6.1	5.4	7.4	8.3	
Cadmium	0.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Chromium	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Chromium *6	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Mercury	0.20	ND	0.46	ND	0.38	ND	ND	ND	ND	ND	ND	ND	ND	
Lead	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Zinc	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Copper	0.50	4.03	4.04	3.51	5.07	3.71	4.82	4.85	4.77	4.90	3.99	3.69	3.35	

ND = Non-detectable

DYNEGY SOUTH BAY LLC - MONTHLY REPORT

Facility Name: South Bay Power Plant
 Order No: R9-2004-0154
 Report Freq: Monthly
 Report For: August, 2009
 Report Due: September, 2009
 Wastestream: Once-through Cooling Water (Intake and Combined Discharge)


Signed 
 Extract Sample Point: CW Inlet and Discharge
 Collected By: Operations Personnel
 Analyzed By: Operations Personnel

PARAMETER: Temperature (Combined Discharge Deg F Minus Intake Deg F)
 Units: Degrees Fahrenheit

DATE	DAILY AVERAGE DIFFERENCE	DAILY MAXIMUM DIFFERENCE
01	6.7	9.6
02	5.7	6.6
03	8.7	14.2
04	10.4	17.2
05	8.9	15.1
06	7.2	8.7
07	6.6	7.4
08	3.0	5.2
09	8.1	15.3
10	12.0	17.5
11	11.4	16.2
12	10.2	13.7
13	10.3	12.5
14	9.9	15.1
15	3.1	5.3
16	2.7	3.9
17	9.2	11.7
18	9.4	17.3
19	6.9	9.7
20	9.2	14.7
21	11.0	18.2
22	9.2	14.5
23	5.7	8.0
24	9.3	15.4
25	9.6	15.3
26	11.1	16.6
27	12.5	18.9
28	12.5	17.0
29	11.0	18.0
30	11.0	17.3
31	12.3	18.6
DISCHARGE DAYS AVERAGE	8.9	13.4
REQUIREMENTS:	15.0	25.0

DYNEGY SOUTH BAY LLC - MONTHLY REPORT

Facility Name: South Bay Power Plant
 Order No: R9-2004-0154
 Report Freq: Monthly
 Report For: August, 2009
 Report Due: September, 2009
 Wastestream: Once-through Cooling Water (Intake and Combined Discharge)

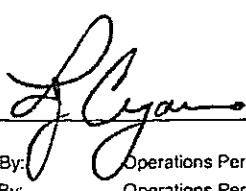
Signed 
 Extract Sample Point: CW Inlet and Discharge (S1)
 Collected By: Operations Personnel
 Analyzed By: Operations Personnel

PARAMETER: Temperature (Average of 24 readings)
 Units: Degrees Fahrenheit

DATE	DAILY AVERAGE INTAKE	DAILY AVERAGE DISCHARGE
01	78.2	84.9
02	78.5	84.2
03	78.3	87.0
04	78.5	88.9
05	79.4	88.3
06	79.3	86.5
07	78.8	85.3
08	78.7	81.7
09	78.4	86.5
10	77.8	89.8
11	77.6	89.0
12	77.6	87.8
13	77.4	87.7
14	77.2	87.1
15	77.4	80.5
16	77.5	80.2
17	77.2	86.3
18	77.2	86.6
19	76.9	83.8
20	76.4	85.6
21	75.2	86.2
22	75.0	84.2
23	76.2	81.9
24	76.8	86.1
25	77.8	87.4
26	78.0	89.2
27	78.6	91.1
28	79.4	91.9
29	80.9	91.9
30	81.1	92.0
31	81.1	93.4
DISCHARGE DAYS AVERAGE	78.0	86.9

DYNEGY SOUTH BAY LLC - MONTHLY REPORT

Facility Name: South Bay Power Plant
 Order No: R9-2004-0154
 Report Freq: Monthly
 Report For: August, 2009
 Report Due: September, 2009
 Wastestream: Combined Discharge

Signed 
 Collected By: Operations Personnel
 Analyzed By: Operations Personnel

PARAMETER: Flow Rate
 Units: Million Gallons per Day (MGD)

DATE COMBINED DISCHARGE

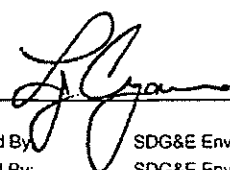
01	288.2
02	240.5
03	214.7
04	241.9
05	227.5
06	215.3
07	180.0
08	133.0
09	170.4
10	223.4
11	222.6
12	231.5
13	288.0
14	258.7
15	133.0
16	133.0
17	214.1
18	215.0
19	240.8
20	337.0
21	333.6
22	331.5
23	329.1
24	281.5
25	250.7
26	320.3
27	374.1
28	374.5
29	379.7
30	379.7
31	366.2

DISCHARGE DAYS
 AVERAGE 262.2

REQUIREMENTS: 601.1

DYNEGY SOUTH BAY LLC - MONTHLY REPORT

Facility Name: South Bay Power Plant
 Order No: R9-2004-0154
 Report Freq: Monthly
 Report For: August, 2009
 Report Due: September, 2009

Signed 
 Collected By: SDG&E Environmental Lab
 Analyzed By: SDG&E Environmental Lab

WASTESTREAM NAME: Combined Discharge - Property Line, S2 8/6/09
 PARAMETER NAME: CHLORINE, TOTAL RESIDUAL

UNITS	SAMPLE TYPE	REQ'T TYPE	REQ'T VALUE	RESULT	COMMENTS
UG/L	GRAB	Instant Maximum	95 *	<40	3 TRC samples were analyzed on 08/06/09; see addendum 1.
LB/DAY	GRAB	Instant Maximum	43 *	<18	

*Intermittent discharge limit is based on continuous uninterrupted chlorination cycle of 60 minutes

WASTESTREAM NAME: Combined Discharge - Property Line, S2 8/13/09
 PARAMETER NAME: CHLORINE, TOTAL RESIDUAL

UNITS	SAMPLE TYPE	REQ'T TYPE	REQ'T VALUE	RESULT	COMMENTS
UG/L	GRAB	Instant Maximum	85 **	<40	4 TRC samples were analyzed on 08/13/09; see addendum 1.
LB/DAY	GRAB	Instant Maximum	68 **	<32	

**Intermittent discharge limit is based on continuous uninterrupted chlorination cycle of 80 minutes

WASTESTREAM NAME: Combined Discharge - Property Line, S2 8/20/09
 PARAMETER NAME: CHLORINE, TOTAL RESIDUAL

UNITS	SAMPLE TYPE	REQ'T TYPE	REQ'T VALUE	RESULT	COMMENTS
UG/L	GRAB	Instant Maximum	85 **	40	4 TRC samples were analyzed on 08/20/09; see addendum 1.
LB/DAY	GRAB	Instant Maximum	80 **	37	

**Intermittent discharge limit is based on continuous uninterrupted chlorination cycle of 80 minutes

WASTESTREAM NAME: Combined Discharge - Property Line, S2 8/27/09
 PARAMETER NAME: CHLORINE, TOTAL RESIDUAL

UNITS	SAMPLE TYPE	REQ'T TYPE	REQ'T VALUE	RESULT	COMMENTS
UG/L	GRAB	Instant Maximum	85 **	40	4 TRC samples were analyzed on 08/27/09; see addendum 1.
LB/DAY	GRAB	Instant Maximum	88 **	42	

**Intermittent discharge limit is based on continuous uninterrupted chlorination cycle of 80 minutes

WASTESTREAM NAME: Combined Discharge - Property Line, S2 01/00/00
 PARAMETER NAME: CHLORINE, TOTAL RESIDUAL

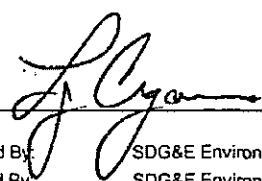
UNITS	SAMPLE TYPE	REQ'T TYPE	REQ'T VALUE	RESULT	COMMENTS
UG/L	GRAB	Instant Maximum	-- **	--	
LB/DAY	GRAB	Instant Maximum	-- **	--	

**Intermittent discharge limit is based on continuous uninterrupted chlorination cycle of 00 minutes



DYNEGY SOUTH BAY LLC - MONTHLY REPORT

Facility Name: South Bay Power Plant
 Order No: R9-2004-0154
 Report Freq: Monthly
 Report For: August, 2009
 Report Due: September, 2009

Signed 
 Collected By: SDG&E Environmental Lab
 Analyzed By: SDG&E Environmental Lab

WASTESTREAM NAME: Cooling Water Effluent, Weather Station, S1 8/6/09
 PARAMETER NAME: CHLORINE, TOTAL RESIDUAL

UNITS	SAMPLE TYPE	REQ'T TYPE	REQ'T VALUE	RESULT	COMMENTS
UG/L	GRAB	Instant Maximum	95 *	<40	3 TRC samples were analyzed on 08/06/09; see addendum 1.
LB/DAY	GRAB	Instant Maximum	43 *	<18	

*Intermittent discharge limit is based on continuous uninterrupted chlorination cycle of 60 minutes

WASTESTREAM NAME: Cooling Water Effluent, Weather Station, S1 8/13/09
 PARAMETER NAME: CHLORINE, TOTAL RESIDUAL

UNITS	SAMPLE TYPE	REQ'T TYPE	REQ'T VALUE	RESULT	COMMENTS
UG/L	GRAB	Instant Maximum	85 **	<40	4 TRC samples were analyzed on 08/13/09; see addendum 1.
LB/DAY	GRAB	Instant Maximum	68 **	<32	

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WASTESTREAM NAME: Cooling Water Effluent, Weather Station, S1 8/20/09
 PARAMETER NAME: CHLORINE, TOTAL RESIDUAL

UNITS	SAMPLE TYPE	REQ'T TYPE	REQ'T VALUE	RESULT	COMMENTS
UG/L	GRAB	Instant Maximum	85 **	40	4 TRC samples were analyzed on 08/20/09; see addendum 1.
LB/DAY	GRAB	Instant Maximum	80 **	37	

**Intermittent discharge limit is based on continuous uninterrupted chlorination cycle of 80 minutes

WASTESTREAM NAME: Cooling Water Effluent, Weather Station, S1 8/27/09
 PARAMETER NAME: CHLORINE, TOTAL RESIDUAL

UNITS	SAMPLE TYPE	REQ'T TYPE	REQ'T VALUE	RESULT	COMMENTS
UG/L	GRAB	Instant Maximum	85 **	40	4 TRC samples were analyzed on 08/27/09; see addendum 1.
LB/DAY	GRAB	Instant Maximum	88 **	42	

**Intermittent discharge limit is based on continuous uninterrupted chlorination cycle of 80 minutes

WASTESTREAM NAME: Cooling Water Effluent, Weather Station, S1 --
 PARAMETER NAME: CHLORINE, TOTAL RESIDUAL

UNITS	SAMPLE TYPE	REQ'T TYPE	REQ'T VALUE	RESULT	COMMENTS
UG/L	GRAB	Instant Maximum	-- **	--	0
LB/DAY	GRAB	Instant Maximum	-- **	--	

**Intermittent discharge limit is based on continuous uninterrupted chlorination cycle of 00 minutes

DYNEGY SOUTH BAY LLC - MONTHLY REPORT

Facility Name: South Bay Power Plant
 Order No: R9-2004-0154
 Report Freq: Monthly
 Report For: August, 2009
 Report Due: September, 2009

Signed 
 Collected By: SDG&E Environmental Lab
 Analyzed By: SDG&E Environmental Lab

WASTESTREAM NAME: Cooling Water Inlet 8/6/09
 PARAMETER NAME: CHLORINE, TOTAL RESIDUAL

UNITS	SAMPLE TYPE	REQ'T TYPE	REQ'T VALUE	RESULT	COMMENTS
UG/L	GRAB	Instant Maximum	95 *	<40	3 TRC samples were analyzed on 08/06/09; see addendum 1.
LB/DAY	GRAB	Instant Maximum	43 *	<18	

*Intermittent discharge limit is based on continuous uninterrupted chlorination cycle of 60 minutes

WASTESTREAM NAME: Cooling Water Inlet 8/13/09
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**Intermittent discharge limit is based on continuous uninterrupted chlorination cycle of 80 minutes

WASTESTREAM NAME: Cooling Water Inlet 8/20/09
 PARAMETER NAME: CHLORINE, TOTAL RESIDUAL

UNITS	SAMPLE TYPE	REQ'T TYPE	REQ'T VALUE	RESULT	COMMENTS
UG/L	GRAB	Instant Maximum	85 **	<40	4 TRC samples were analyzed on 08/20/09; see addendum 1.
LB/DAY	GRAB	Instant Maximum	80 **	<37	

**Intermittent discharge limit is based on continuous uninterrupted chlorination cycle of 80 minutes

WASTESTREAM NAME: Cooling Water Inlet 8/27/09
 PARAMETER NAME: CHLORINE, TOTAL RESIDUAL

UNITS	SAMPLE TYPE	REQ'T TYPE	REQ'T VALUE	RESULT	COMMENTS
UG/L	GRAB	Instant Maximum	85 **	<40	4 TRC samples were analyzed on 08/27/09; see addendum 1.
LB/DAY	GRAB	Instant Maximum	88 **	<42	

**Intermittent discharge limit is based on continuous uninterrupted chlorination cycle of 80 minutes

WASTESTREAM NAME: Cooling Water Inlet --
 PARAMETER NAME: CHLORINE, TOTAL RESIDUAL

UNITS	SAMPLE TYPE	REQ'T TYPE	REQ'T VALUE	RESULT	COMMENTS
UG/L	GRAB	Instant Maximum	-- **	--	0
LB/DAY	GRAB	Instant Maximum	-- **	--	

**Intermittent discharge limit is based on continuous uninterrupted chlorination cycle of 00 minutes



SOUTH BAY POWER PLANT
Monthly Intake and Receiving Water
Monitoring Study
April 2009

Prepared for:

Dynegy South Bay LLC
South Bay Power Plant
990 Bay Boulevard
Chula Vista, California 91911



**SOUTH BAY POWER PLANT
Monthly Intake and Receiving Water
Monitoring Study
April 2009**

Prepared for:

Dynegy South Bay LLC
South Bay Power Plant
990 Bay Boulevard
Chula Vista, California 91911

Prepared by:

Weston Solutions
2433 Impala Drive
Carlsbad, California 92010

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1 INTRODUCTION

This monthly intake and receiving water monitoring program was conducted in compliance with specifications set forth in the California Regional Water Quality Control Board San Diego Region, "Monitoring and Reporting Program No. R9-2004-0154 (NPDES No. CA0001368) for the South Bay Power Plant, San Diego County." The receiving water monitoring program requires monthly monitoring of temperature, dissolved oxygen, water transparency, salinity, and metals.

San Diego Gas & Electric Company began operation of the fossil-fueled steam generation facility in south San Diego Bay in 1960 with one generating unit. Additional units became operational in 1962, 1964, and 1971. Each generating unit draws cooling water from the bay and returns the thermally-enhanced effluent to the bay. The discharge is separated from the intake by an earthen dike.

Duke Energy Power Services took over operation of the plant in April 1999. In May 2006, operations of the plant were transferred to LSP South Bay LLC. On April 1, 2007, operations were transferred to Dynegy South Bay LLC. This report is prepared for Dynegy South Bay LLC.

2 METHODS

2.1 Field Methods

The intake and eleven receiving water monitoring stations (Figure 1) were sampled on 13 April 2009. Stations were located at positions sampled during previous studies (Ford et al. 1973). Positions for these stations were re-established by KLI in 1987 using Loran coordinates, compass bearings, and visual observations from landmarks established during previous studies. Global Positioning System satellite navigation was utilized in the 1991 study by KLI to increase station location accuracy. During the present survey, a Differential Global Positioning System (DGPS) was used to provide station location within 5 meters accuracy.

All stations were sampled between noon and 6:00PM. Tidal height during sampling is shown in Figure 2. Sampling occurred eleven days prior to the new moon.

This monitoring program is designed to allow representative gradient sampling of the area directly influenced by the discharge, an area away from the initial influence of the discharge but within the elevated temperature field, and an area judged to be outside substantial influence from the discharge.

Physical and chemical water column measurements from the intake and each receiving water monitoring station included temperature, salinity, water transparency, and dissolved oxygen. A Seabird SBE-25 Sealogger was used to measure depth, temperature, salinity, and dissolved oxygen. This instrument scans all sensors at 8 scans per second as the instrument is lowered through the water column. The data is stored in the units' memory and are retrieved in the laboratory directly into a database. The scans are averaged by 1-m depth intervals using software provided by Seabird. The unit was lowered at a speed of 0.2 - 0.4 m/sec so that each depth interval was sampled several times. Transparency was recorded as Secchi disc extinction depth (m). Air temperature was determined for each station using an Orion Model 820 dissolved oxygen/temperature meter.

Grab samples were collected at each station at mid-depth in the water column with a Niskin bottle. After retrieval of the sample, sample jars were filled from the sampler. Prior to sampling each station, the sampler was washed using standard de-contamination procedures. Samples were delivered to Dynegy South Bay LLC for transfer to the laboratory.

3 RESULTS

3.1 Physical and Chemical Characteristics of the Water Column

Physical and chemical water column measurements collected at the intake and each station are summarized in Table 1 and Figure 3. Air temperature at the time of collection ranged from 62.8°F to 70.2°F. All data was collected between 1200 and 1700 hours. Water column measurements including temperature, transparency, salinity, and dissolved oxygen were within the range of data collected during previous studies (LCMR 1977-79; LES (LOSL) 1980-81; WCC 1982-83; KLI 1986-91; MEC 1996).

3.1.1 Temperature

Temperature profiles at most stations varied little with depth (Figure 3), as is typical in a shallow bay. Temperatures at Station E7 were 0.8°F to 5.5°F higher than the other stations. Surface water temperatures ranged from 66.3°F at Station A3 to 71.4°F at Station E7 and bottom temperatures ranged from 65.9°F at Intake to 70.4°F at Station E5.

3.1.2 Salinity

Salinity measurements ranged from 31.6‰ (Intake) to 34.3‰ (Stations E4 and F3) in surface waters and from 30.2‰ (Intake) to 34.3‰ (Station F4) in bottom waters.

3.1.3 Dissolved Oxygen

Surface and bottom dissolved oxygen measurements ranged from 5.9 mg/L (Intake) to 8.1 mg/L (Station N2) in surface waters and from 6.4 mg/L (Station E5) to 8.0 mg/L (Station N2) in bottom waters. Percent saturation ranged from 78% (Intake) to 108% (Station N2) in surface waters and from 87% (Station E5) to 107% (Station N2) in bottom waters.

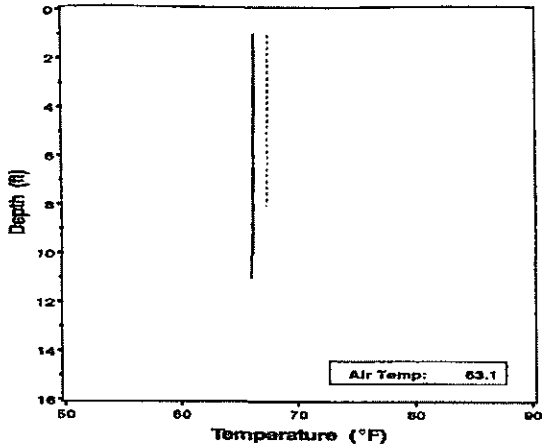
3.1.4 Transparency

Secchi disk transparency ranged from 0.5 m (Stations E4, F2, F3, E5, E7 and Intake) to 1.5 m (Stations N2, A3 and C3). Transparency values were within the range of values typically recorded in the past.

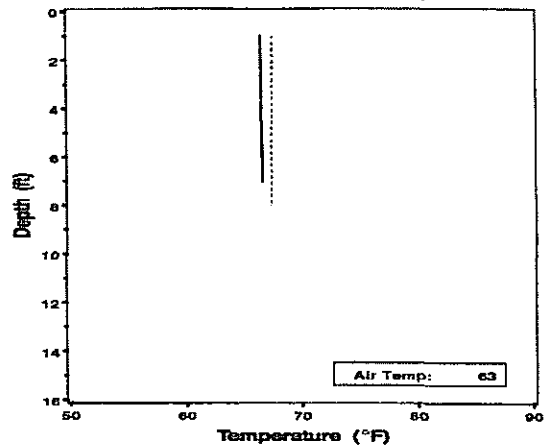
**Table 1. Monthly Intake and Receiving Water Monitoring Station Measurements, South San Diego Bay,
13 April 2009.**

Parameters	STATIONS												
	N2	A3	C3	D4	E3	E4	F2	F3	F4	E5	E7	Intake	
Physical and Chemical Data													
Water Column Temp. (°F)													
Surface	67.5	66.3	66.6	67.1	67.5	69.6	66.8	69.5	70.6	70.6	71.4	67.4	
2 ft	67.5	66.3	66.6	67.1	67.6	69.6	66.8	69.2	70.1	70.5	71.3	67.1	
4 ft	67.5	66.3	66.6	67.1	67.6	69.6		69.1	69.2	70.5	70.4	66.9	
6 ft	67.4	66.2	66.6			69.3		68.5	68.5	70.4	69.8	66.6	
8 ft	67.4	66.2										66.5	
10 ft		66.1										66.7	
12 ft												65.9	
14 ft													
16 ft													
Transparency (m)	1.5	1.5	1.5	1.0	1.0	0.5	0.5	0.5	1.0	0.5	0.5	0.5	
Salinity (ppt) - Surface	33.7	33.7	33.8	34.1	34.1	34.3	34.0	34.3	34.2	33.9	34.0	31.6	
Salinity (ppt) - Bottom	33.7	33.4	33.9	31.4	34.1	30.9	31.0	33.8	34.3	31.0	34.1	30.2	
D.O. (mg/L) - Surface	8.1	7.3	7.2	7.3	7.3	7.2	7.6	7.1	7.3	7.0	7.2	5.9	
(% of Saturation)	108	96	96	98	98	99	101	98	101	97	101	78	
(Receiving/Intake)	1.37	1.23	1.22	1.24	1.24	1.22	1.29	1.21	1.23	1.19	1.22	1.00	
D.O. (mg/L) - Bottom	8.0	6.7	6.9	6.8	7.3	7.0	7.0	6.9	7.3	6.4	7.3	6.8	
(% of Saturation)	107	89	92	89	98	94	91	94	99	87	100	88	
(Receiving/Intake)	1.18	0.99	1.02	1.00	1.08	1.03	1.03	1.02	1.07	0.95	1.08	1.00	
Bottom Depth (ft) at MLLW	4.9	8.7	5.0	2.4	2.7	3.1	-0.2	2.7	2.7	4.0	3.3	9.2	
Air Temperature (°F)	70.2	63.1	63.0	66.0	62.8	62.8	64.8	62.8	66.9	67.1	66.4	62.8	
Date Sampled	13Apr09	13Apr09	13Apr09	13Apr09	13Apr09	13Apr09	13Apr09	13Apr09	13Apr09	13Apr09	13Apr09	13Apr09	
Time Sampled (PDT)	1431	1200	1210	1220	1330	1400	1231	1344	1320	1305	1250	1415	
Tide Height (ft) (At Sampling Time)	3.1	3.1	3.1	3.1	3.1	3.2	3.2	3.3	3.3	3.3	3.2	3.2	

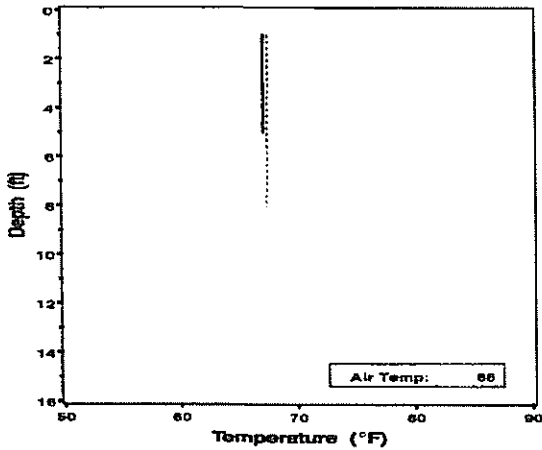
Station A3 distance (ft) = 11250



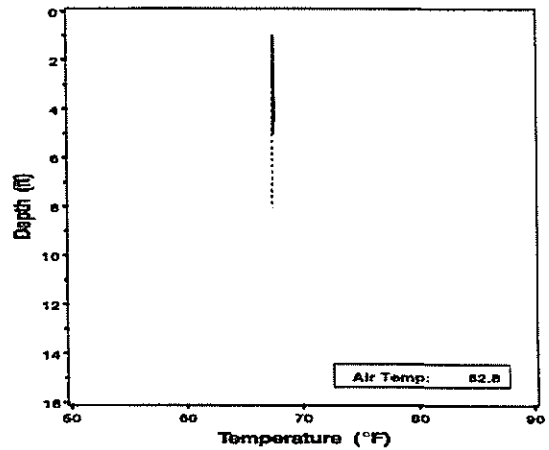
Station C3 distance (ft) = 9000



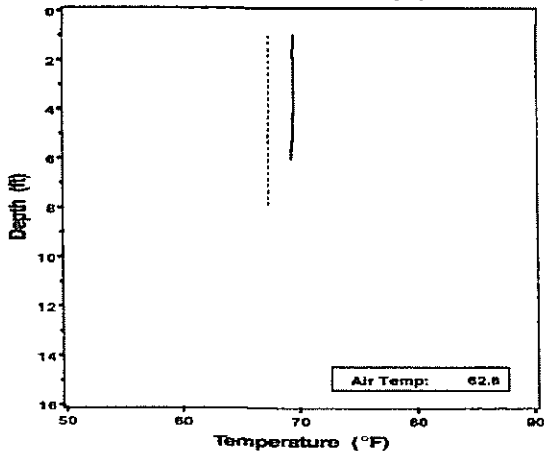
Station D4 distance (ft) = 7501



Station E3 distance (ft) = 6700



Station E4 distance (ft) = 6000



Station F2 distance (ft) = 7500

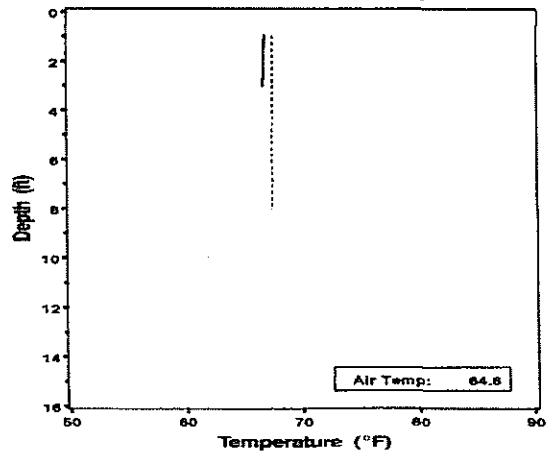


Figure 3. Temperature Profiles by Station.
Distance from the Discharge is Reported in Feet.
 (solid line = station temperatures, dashed line = N2 temperatures)

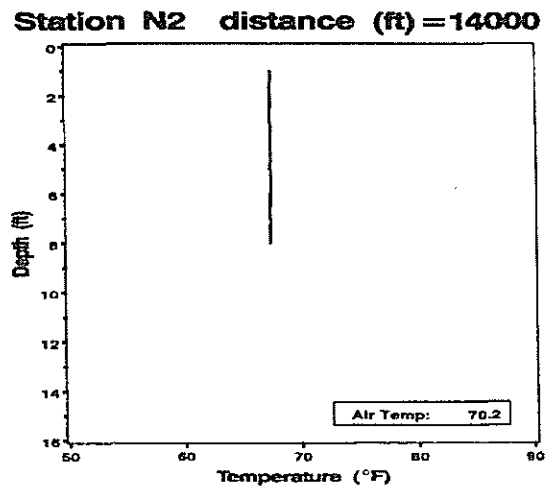
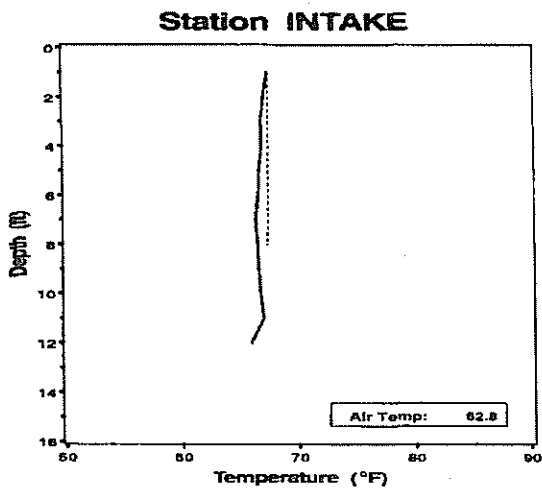
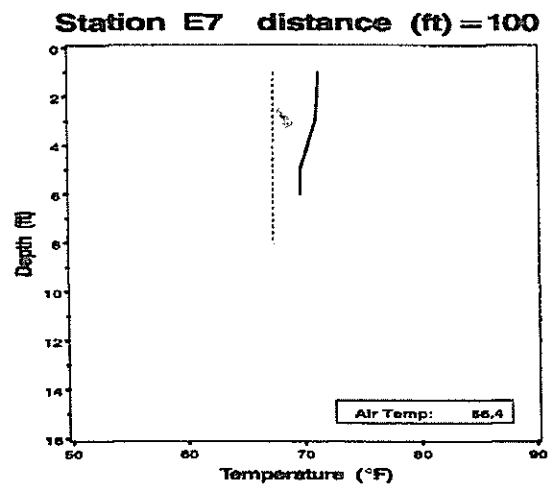
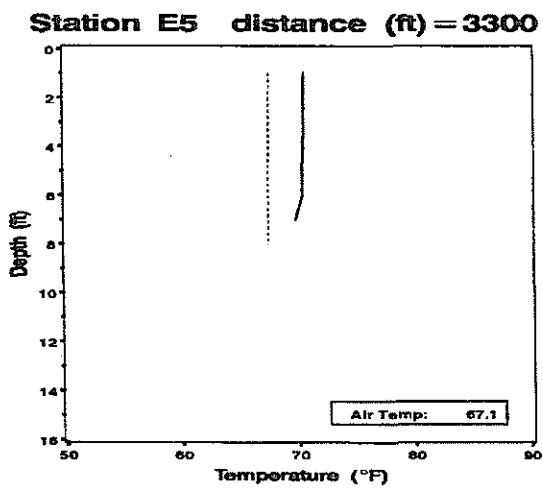
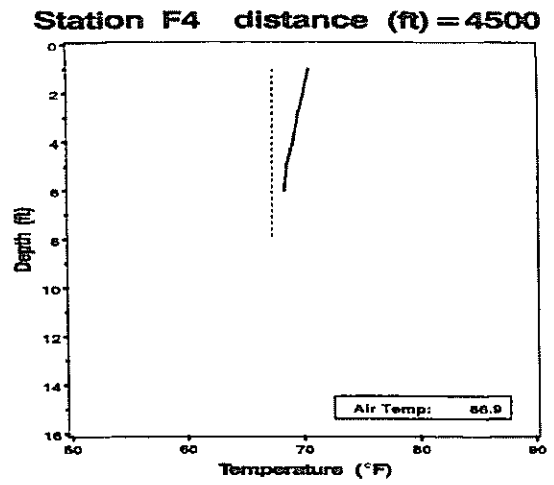
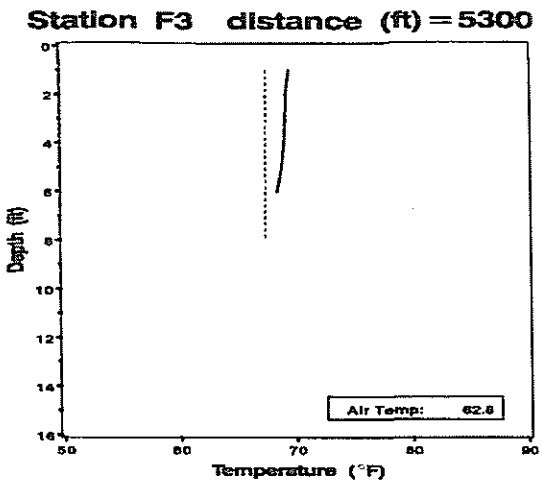


Figure 3. Continued.