



# Shell Oil Products US

Martinez Refinery  
PO Box 711  
Martinez, CA 94553-0071

## CERTIFIED MAIL

October 17, 2007

Compliance Project Manager  
Docket #93-SPPE-1  
California Energy Commission  
1516 Ninth Street (MS-2000)  
Sacramento, CA 95814

Dear Sir,

Re: Compliance Verifications – Third Quarter 2007 Report

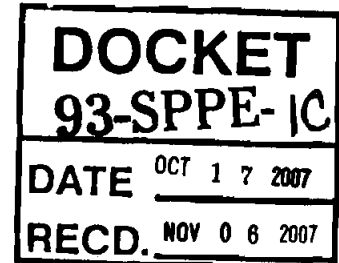
Pursuant to Specific Compliance Condition I. - Air Quality, Air- 1 of 93 SPPE-1, we are providing a quarterly report of air pollutant emissions. The report consists of sections of the monthly reports described in Condition M of the Authority to Construct, and issued to the BAAQMD. This report covers the third quarter, 2007.

If additional information is required concerning this matter, please contact K. P. Wheeler at (925) 313-3722.

Very truly yours,

Lynley C. Harris  
Manager, Environmental Affairs Department  
Shell Oil Products US Martinez Refinery

Enclosure



BAY AREA  
AIR QUALITY MANAGEMENT DISTRICT  
SHELL MARTINEZ REFINING COMPANY  
MONTHLY REPORT

COMPANY: SHELL OIL PRODUCTS CO.  
PLANT NO: 11  
MONTH: July 2007

POLLUTANT	12-MONTH EMISSION LIMITS		MONTHLY TRIGGER LEVELS	
	LIMIT (TON/YR)	ACTUAL (TON/YR)	LIMIT (TON/MO)	ACTUAL (TON/MO)
NOx	199.4	90.0	20.8	8.25
CO	252.4	178.8	26.3	15.66
SO2	139.7	105.8	14.6	9.27
PM/PM10	59.1	41.6	6.2	3.62
POC	132.0	74.0	13.7	6.46

**SOURCES INCLUDED IN EMISSION SUMMARY**

**COMBUSTION SOURCES**

S-4002 DELAYED COKER UNIT FURNACE #1  
S-4003 DELAYED COKER UNIT FURNACE #2  
S-4021 DHT RECYCLE GAS HEATER  
S-4031 CRACK GAS BOTTOMING REBOILER HTR  
S-4141 HGHT FEED HEATER  
S-4161 HYDROGEN PLANT SMR FURNACE  
S-4171 LHT-2 FEED HEATER  
S-4190 BOILER 6 GAS TURBINE #1  
S-4191 BOILER 6 SUPPL STEAM GENERATOR #1  
S-4192 BOILER 6 GAS TURBINE #2  
S-4193 BOILER 6 SUPPL STEAM GENERATOR #2

**SRU #4**

A-4180 SRU-4 SCOT UNIT  
A-4181 SRU-4 SCOT THERMAL OXIDIZER  
A-4347 SULFUR PIT

**TANKAGE**

S-4307 MDEA MAKE-UP TANK  
S-4309 DEA TANK #1  
S-4310 SOUR WATER TANK  
S-4319 RECOVERED OIL TANK  
S-4334 ALKYLATE TANK  
S-4350 PROCESS WASTEWATER TANK  
S-4356 PROCESS WASTEWATER TANK

BAY AREA  
 AIR QUALITY MANAGEMENT DISTRICT  
 SHELL MARTINEZ REFINING COMPANY  
 MONTHLY REPORT

COMPANY: SHELL OIL PRODUCTS CO.  
 PLANT NO: 11  
 MONTH: July 2007

SOURCE: FUEL USE SUMMARY

FUEL TYPE (MMBTU)	COGEN	HP-3	FURNACES w/ SCR	FURNACES w/ LOW NOX BURNERS
RFG	160329	139894	53760	0
FXG	0	62567	75775	0
PSA	0	401889	0	0
NATURAL GAS	669244	0	0	23114

BAY AREA  
 AIR QUALITY MANAGEMENT DISTRICT  
 SHELL MARTINEZ REFINING COMPANY  
 MONTHLY REPORT

COMPANY: SHELL OIL PRODUCTS CO.  
 PLANT NO: 11  
 MONTH: July 2007

SOURCE: EMISSION SUMMARY BY  
 TYPE

TYPE	NOx (LB/MONTH)	CO (LB/MONTH)	SO2 (LB/MONTH)	PM/PM10 (LB/MONTH)	POC (LB/MONTH)
COGEN/BOILERS	11795	13273	1727	4148	10784
FURN ABATED BY SCR	345	4534	5600	648	389
FURN W/ LOW NOx BURN	667	809	14	116	69
HYDROGEN PLANT	3691	12691	5838	2218	1250
OTHERS*	2	13	201	0	12
RAIL/TRUCK LOADING	0	0	0	109	0
SCOT UNIT	NA	NA	5157	NA	NA
TANKS	0	0	0	0	413
TOTAL	16500	31321	18538	7238	12918

\* OTHER emissions are from flaring events

**BAY AREA  
AIR QUALITY MANAGEMENT DISTRICT  
SHELL MARTINEZ REFINING COMPANY  
MONTHLY REPORT**

COMPANY: SHELL OIL PRODUCTS CO. SOURCE: COGEN S-4190,  
 PLANT NO: 11 S-4191, S-4192, S-4193  
 MONTH: July 2007 CONDITION: 24

DAY OF MONTH	NOX (LBS/DAY) LIMIT:610	3 HR MAX NOx @ 15% O2 (PPMV) LIMIT:5		POC (LBS/DAY) LIMIT:500	SO2 (LBS/DAY) LIMIT:458	PM10 LIMIT (LBS/DAY)	PM10 ACTUAL (LBS/DAY)
		S-4191	S-4193				
		1	379				
2	374	4	4	346	59	649	133
3	362	4	4	336	53	657	129
4	357	4	4	330	50	661	127
5	364	4	4	337	54	656	130
6	370	4	4	343	52	654	132
7	361	4	4	337	49	659	130
8	363	4	4	334	51	658	129
9	380	4	4	347	56	647	133
10	383	4	4	349	58	644	134
11	386	4	4	351	53	645	135
12	385	4	4	350	56	644	135
13	382	4	4	349	53	647	134
14	261	4	S/D	196	38	717	75
15	351	4	S/U	339	51	664	130
16	387	4	4	353	57	643	136
17	394	4	4	360	55	640	139
18	383	4	4	353	55	646	136
19	379	4	4	347	55	648	133
20	384	4	4	350	54	645	135
21	394	4	4	362	58	639	139
22	391	4	4	358	58	640	138
23	391	4	4	357	64	638	137
24	384	4	4	354	56	645	136
25	407	4	4	371	62	630	143
26	416	4	4	378	64	624	146
27	404	4	4	370	62	631	142
28	408	4	4	371	59	631	143
29	400	4	4	364	54	637	140
30	405	4	4	369	62	631	142
31	408	4	4	372	59	631	143
TOTAL	11795			10785	1727		4148

BAY AREA  
 AIR QUALITY MANAGEMENT DISTRICT  
 SHELL MARTINEZ REFINING COMPANY  
 MONTHLY REPORT

COMPANY: SHELL OIL PRODUCTS CO.  
 PLANT NO: 11  
 MONTH: July 2007

SOURCE: COGEN S-4190,  
 S-4191, S-4192, S-4193  
 POLLUTANT: NOX, SO2

II. STATEMENT OF EXCESS EMISSIONS\* (Negative declaration required)

DATE	TIME	DURATION	MAGNITUDE	REMARKS
				None this reporting period.

\*Excess for this source is:

- 1) Emission of NOx exceeding 5 ppmv, dry, @ 15% O2, 3 hour average.
- 2) Emission of NOx exceeding 610 ppd, combined sources
- 2) Emission of SO2 exceeding 458 ppd, combined sources

III. MONITOR MALFUNCTION/DOWNTIME

DATE	TIME	DURATION	PROBLEM/CORRECTIVE ACTION
07/24/07	10:30	1h 25m	AST audit
07/24/07	10:30	1h 25m	AST audit

**BAY AREA  
AIR QUALITY MANAGEMENT DISTRICT  
SHELL MARTINEZ REFINING COMPANY  
MONTHLY REPORT**

COMPANY: SHELL OIL PRODUCTS CO.  
PLANT NO: 11  
MONTH: August 2007

POLLUTANT	12-MONTH EMISSION LIMITS		MONTHLY TRIGGER LEVELS	
	LIMIT (TON/YR)	ACTUAL (TON/YR)	LIMIT (TON/MO)	ACTUAL (TON/MO)
NOx	199.4	89.9	20.8	7.64
CO	252.4	179.5	26.3	15.66
SO2	139.7	108.9	14.6	7.99
PM/PM10	59.1	41.8	6.2	3.65
POC	132.0	73.8	13.7	6.51

**SOURCES INCLUDED IN EMISSION SUMMARY**

**COMBUSTION SOURCES**

S-4002 DELAYED COKER UNIT FURNACE #1  
S-4003 DELAYED COKER UNIT FURNACE #2  
S-4021 DHT RECYCLE GAS HEATER  
S-4031 CRACK GAS BOTTOMING REBOILER HTR  
S-4141 HGHT FEED HEATER  
S-4161 HYDROGEN PLANT SMR FURNACE  
S-4171 LHT-2 FEED HEATER  
S-4190 BOILER 6 GAS TURBINE #1  
S-4191 BOILER 6 SUPPL STEAM GENERATOR #1  
S-4192 BOILER 6 GAS TURBINE #2  
S-4193 BOILER 6 SUPPL STEAM GENERATOR #2

**SRU #4**

A-4180 SRU-4 SCOT UNIT  
A-4181 SRU-4 SCOT THERMAL OXIIDIZER  
A-4347 SULFUR PIT

**TANKAGE**

S-4307 MDEA MAKE-UP TANK  
S-4309 DEA TANK #1  
S-4310 SOUR WATER TANK  
S-4319 RECOVERED OIL TANK  
S-4334 ALKYLATE TANK  
S-4350 PROCESS WASTEWATER TANK  
S-4356 PROCESS WASTEWATER TANK

**BAY AREA  
 AIR QUALITY MANAGEMENT DISTRICT  
 SHELL MARTINEZ REFINING COMPANY  
 MONTHLY REPORT**

**COMPANY: SHELL OIL PRODUCTS CO.**  
**PLANT NO: 11**  
**MONTH: August 2007**

**SOURCE: FUEL USE SUMMARY**

FUEL TYPE (MMBTU)	COGEN	HP-3	FURNACES w/ SCR	FURNACES w/ LOW NOX BURNERS
RFG	167367	149108	58889	0
FXG	0	52335	68368	0
PSA	0	394904	0	0
NATURAL GAS	679513	0	0	22416



BAY AREA  
 AIR QUALITY MANAGEMENT DISTRICT  
 SHELL MARTINEZ REFINING COMPANY  
 MONTHLY REPORT

COMPANY: SHELL OIL PRODUCTS CO.  
 PLANT NO: 11  
 MONTH: August 2007

SOURCE: EMISSION SUMMARY BY  
 TYPE

TYPE	NOx (LB/MONTH)	CO (LB/MONTH)	SO2 (LB/MONTH)	PM/PM10 (LB/MONTH)	POC (LB/MONTH)
COGEN/BOILERS	12146	13550	1740	4234	11009
FURN ABATED BY SCR	488	4454	4746	636	382
FURN W/ LOW NOx BURN	648	785	13	112	67
HYDROGEN PLANT	1992	12528	4870	2193	1237
OTHERS*	0	1	17	0	2
RAIL/TRUCK LOADING	0	0	0	124	0
SCOT UNIT	NA	NA	4596	NA	NA
TANKS	0	0	0	0	323
<b>TOTAL</b>	<b>15273</b>	<b>31318</b>	<b>15982</b>	<b>7300</b>	<b>13020</b>

\* OTHER emissions are from flaring events

BAY AREA  
AIR QUALITY MANAGEMENT DISTRICT  
SHELL MARTINEZ REFINING COMPANY  
MONTHLY REPORT

COMPANY: SHELL OIL PRODUCTS CO. SOURCE: COGEN S-4190,  
PLANT NO: 11 S-4191, S-4192, S-4193  
MONTH: August 2007 CONDITION: 24

DAY OF MONTH	NOX (LBS/DAY) LIMIT:610	3 HR MAX NOx @ 15% O2 (PPMV) LIMIT:5		POC (LBS/DAY) LIMIT:500	SO2 (LBS/DAY) LIMIT:458	PM10 LIMIT (LBS/DAY)	PM10 ACTUAL (LBS/DAY)
		S-4191	S-4193				
		1	401				
2	392	4	4	360	52	642	138
3	390	4	4	355	52	643	137
4	399	4	4	362	55	637	139
5	404	4	4	368	57	634	142
6	392	4	4	357	54	641	137
7	447	16	4	344	49	615	132
8	382	4	4	347	48	649	134
9	384	4	4	350	52	646	135
10	389	4	4	354	55	642	136
11	386	4	4	354	58	643	136
12	394	4	4	358	62	637	138
13	382	4	4	347	58	645	133
14	372	4	4	339	48	654	131
15	362	4	4	331	51	658	127
16	361	4	4	330	46	661	127
17	365	4	4	335	51	657	129
18	381	4	4	350	59	645	135
19	386	4	4	354	59	643	136
20	388	4	4	353	57	642	136
21	397	4	4	361	67	633	139
22	392	4	4	357	59	639	137
23	402	4	4	366	59	634	141
24	408	4	4	372	54	633	143
25	413	4	4	376	52	631	145
26	415	4	4	378	61	626	145
27	412	4	4	375	70	624	144
28	400	4	4	365	65	633	140
29	380	4	4	348	58	646	134
30	382	4	4	350	63	643	135
31	388	4	4	353	57	642	136
TOTAL	12146			11015	1740		4237

BAY AREA  
 AIR QUALITY MANAGEMENT DISTRICT  
 SHELL MARTINEZ REFINING COMPANY  
 MONTHLY REPORT

COMPANY: SHELL OIL PRODUCTS CO.  
 PLANT NO: 11  
 MONTH: August 2007

SOURCE: COGEN S-4190,  
 S-4191, S-4192, S-4193  
 POLLUTANT: NOX, SO2

II. STATEMENT OF EXCESS EMISSIONS\* (Negative declaration required)

DATE	TIME	DURATION	MAGNITUDE	REMARKS
08/07/07	13:44	5h 14m	16 ppm	Loss of NH3 injection to boiler

\*Excess for this source is:

- 1) Emission of NOx exceeding 5 ppmv, dry, @ 15% O2, 3 hour average.
- 2) Emission of NOx exceeding 610 ppd, combined sources
- 2) Emission of SO2 exceeding 458 ppd, combined sources

III. MONITOR MALFUNCTION/DOWNTIME

DATE	TIME	DURATION	PROBLEM/CORRECTIVE ACTION
08/23/07	10:05	1h 30m	Action limit

BAY AREA  
AIR QUALITY MANAGEMENT DISTRICT  
SHELL MARTINEZ REFINING COMPANY  
MONTHLY REPORT

COMPANY: SHELL OIL PRODUCTS CO.  
PLANT NO: 11  
MONTH: September 2007

POLLUTANT	12-MONTH EMISSION LIMITS		MONTHLY TRIGGER LEVELS	
	LIMIT (TON/YR)	ACTUAL (TON/YR)	LIMIT (TON/MO)	ACTUAL (TON/MO)
NOx	199.4	90.9	20.8	8.49
CO	252.4	181.2	26.3	15.38
SO2	139.7	106.3	14.6	6.15
PM/PM10	59.1	42.2	6.2	3.58
POC	132.0	75.1	13.7	6.37

**SOURCES INCLUDED IN EMISSION SUMMARY**

**COMBUSTION SOURCES**

S-4002 DELAYED COKER UNIT FURNACE #1  
S-4003 DELAYED COKER UNIT FURNACE #2  
S-4021 DHT RECYCLE GAS HEATER  
S-4031 CRACK GAS BOTTOMING REBOILER HTR  
S-4141 HGHT FEED HEATER  
S-4161 HYDROGEN PLANT SMR FURNACE  
S-4171 LHT-2 FEED HEATER  
S-4190 BOILER 6 GAS TURBINE #1  
S-4191 BOILER 6 SUPPL STEAM GENERATOR #1  
S-4192 BOILER 6 GAS TURBINE #2  
S-4193 BOILER 6 SUPPL STEAM GENERATOR #2

**SRU #4**

A-4180 SRU-4 SCOT UNIT  
A-4181 SRU-4 SCOT THERMAL OXIIDIZER  
A-4347 SULFUR PIT

**TANKAGE**

S-4307 MDEA MAKE-UP TANK  
S-4309 DEA TANK #1  
S-4310 SOUR WATER TANK  
S-4319 RECOVERED OIL TANK  
S-4334 ALKYLATE TANK  
S-4350 PROCESS WASTEWATER TANK  
S-4356 PROCESS WASTEWATER TANK

BAY AREA  
 AIR QUALITY MANAGEMENT DISTRICT  
 SHELL MARTINEZ REFINING COMPANY  
 MONTHLY REPORT

COMPANY: SHELL OIL PRODUCTS CO.  
 PLANT NO: 11  
 MONTH: September 2007

SOURCE: FUEL USE SUMMARY

FUEL TYPE (MMBTU)	COGEN	HP-3	FURNACES w/ SCR	FURNACES w/ LOW NOX BURNERS
RFG	178591	193946	55986	0
FXG	0	13985	68862	0
PSA	0	381649	0	0
NATURAL GAS	650731	0	0	20760

BAY AREA  
 AIR QUALITY MANAGEMENT DISTRICT  
 SHELL MARTINEZ REFINING COMPANY  
 MONTHLY REPORT

COMPANY: SHELL OIL PRODUCTS CO.  
 PLANT NO: 11  
 MONTH: September 2007

SOURCE: EMISSION SUMMARY BY  
 TYPE

TYPE	NOx (LB/MONTH)	CO (LB/MONTH)	SO2 (LB/MONTH)	PM/PM10 (LB/MONTH)	POC (LB/MONTH)
COGEN/BOILERS	11898	13269	1943	4147	10781
FURN ABATED BY SCR	483	4370	3734	624	375
FURN W/ LOW NOx BURN	597	727	12	104	62
HYDROGEN PLANT	3996	12385	2444	2185	1235
OTHERS*	0	0	0	0	0
RAIL/TRUCK LOADING	0	0	0	104	0
SCOT UNIT	NA	NA	4168	NA	NA
TANKS	0	0	0	0	291
TOTAL	16975	30750	12301	7165	12744

\* OTHER emissions are from flaring events

BAY AREA  
AIR QUALITY MANAGEMENT DISTRICT  
SHELL MARTINEZ REFINING COMPANY  
MONTHLY REPORT

COMPANY: SHELL OIL PRODUCTS CO.  
PLANT NO: 11  
MONTH: September 2007

SOURCE: COGEN S-4190,  
S-4191, S-4192, S-4193  
CONDITION: 24

DAY OF MONTH	NOX (LBS/DAY) LIMIT:610	3 HR MAX NOx @ 15% O2 (PPMV) LIMIT:5		POC (LBS/DAY) LIMIT:500	SO2 (LBS/DAY) LIMIT:458	PM10 LIMIT (LBS/DAY)	PM10 ACTUAL (LBS/DAY)
		S-4191	S-4193				
		1	395				
2	395	4	4	359	66	635	138
3	404	4	4	368	65	630	142
4	408	4	4	372	65	628	143
5	406	4	4	369	72	627	142
6	405	4	4	369	67	629	142
7	418	4	4	381	69	622	146
8	401	4	4	366	63	633	141
9	405	4	4	370	63	631	142
10	409	4	4	374	64	628	144
11	408	4	4	372	65	629	143
12	408	4	4	372	63	629	143
13	398	4	4	363	63	635	140
14	396	4	4	360	62	636	139
15	398	4	4	362	61	635	139
16	367	4	4	335	45	658	129
17	371	4	4	337	54	653	130
18	383	4	4	347	91	631	133
19	406	4	4	370	75	625	142
20	392	4	4	356	55	641	137
21	395	4	4	360	71	633	139
22	399	4	4	363	66	633	140
23	404	4	4	368	62	632	141
24	401	4	4	365	72	629	140
25	392	4	4	357	73	634	137
26	383	4	SD/SU	293	62	643	113
27	385	4	4	352	62	642	135
28	394	4	4	359	63	637	138
29	383	4	4	349	56	645	134
30	387	4	4	353	60	641	136
TOTAL	11898			10781	1943		4147

**BAY AREA  
AIR QUALITY MANAGEMENT DISTRICT  
SHELL MARTINEZ REFINING COMPANY  
MONTHLY REPORT**

COMPANY: SHELL OIL PRODUCTS CO.  
PLANT NO: 11  
MONTH: Sept 2007

SOURCE: COGEN S-4190,  
S-4191, S-4192, S-4193  
POLLUTANT: NOX, SO2

**II. STATEMENT OF EXCESS EMISSIONS\* (Negative declaration required)**

DATE	TIME	DURATION	MAGNITUDE	REMARKS
				None this reporting period.

\*Excess for this source is:

- 1) Emission of NOx exceeding 5 ppmv, dry, @ 15% O2, 3 hour average.
- 2) Emission of NOx exceeding 610 ppd, combined sources
- 2) Emission of SO2 exceeding 458 ppd, combined sources

**III. MONITOR MALFUNCTION/DOWNTIME**

DATE	TIME	DURATION	PROBLEM/CORRECTIVE ACTION
09/07/07	10:10	3h	Action limit fail
09/18/07	10:10	10h 40m	Out of control
09/26/07	09:00	2h 35m	Action limit fail