

Martinez Refinery PO Box 711 Martinez, CA 94553-0071

CERTIFIED MAIL

April 22, 2008

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



Dear Sir,

Re: Compliance Verifications – First Quarter 2008 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 first quarter, 2008.

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

Very truly yours,

Lynley C. Harris

Enclosure

Manager, Environmental Affairs Department Shell Oil Products US Martinez Refinery

COMPANY:

SHELL OIL PRODUCTS CO.

PLANT NO:

11

MONTH: January 2008

POLLUTANT	12-MONTH EMI	SSION LIMITS	MONTHLY TRIGGER LEVELS		
	LIMIT (TON/YR)	ACTUAL (TON/YR)	LIMIT (TON/MO)	ACTUAL (TON/MO)	
NOx	199.4	92.4	20.8	8.42	
со	252.4	174.2	26.3	15.08	
SO2	139.7	99.2	14.6	10.07	
PM/PM10	59.1	40.8	6.2	3.54	
POC	132.0	73.8	13.7	6.36	

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

COMPANY:

SHELL OIL PRODUCTS CO.

SOURCE: FUEL USE SUMMARY

PLANT NO:

11

MONTH: January 2008

FUEL TYPE (MMBTU)	COGEN	HP-3	FURNACES w/ SCR	FURNACES w/ LOW NOX BURNERS
RFG	105381	134350	54815	0
FXG	0	83891	68819	o
PSA	0	356108	0	0
NATURAL GAS	717459	0	0	17341

COMPANY:

SHELL OIL PRODUCTS CO.

SOURCE: EMISSION SUMMARY BY

PLANT NO:

11

TYPE

MONTH: January 2008

TYPE	NOx (LB/MONTH)	CO (LB/MONTH)	SO2 (LB/MONTH)	PM/PM10 (LB/MONTH)	POC (LB/MONTH)
COGEN/BOILERS	11765	13165	1406	4114	10697
FURN ABATED BY SCR	296	4327	6159	618	371
FURN W/ LOW NOx BURN	489	607	10	87	52
HYDROGEN PLANT	4282	12059	8606	2159	1224
OTHERS*	0	0	. 0	О	o
RAIL/TRUCK LOADING	0	0	0	111	0
SCOT UNIT	NA	NA	3967	NA	NA
TANKS	0	0	0	0	376
TOTAL	16833	30159	20148	7089	12720

^{*} OTHER emissions are from flaring events

COMPANY:

SHELL OIL PRODUCTS CO.

SOURCE: COGEN S-4190,

PLANT NO:

11

S-4191, S-4192, S-4193

MONTH: January 2008

CONDITION: 24

DAY	NOX		MAX	POC	SO2	PM10	PM10
OF	(LBS/DAY)	NOx @	15% O2	(LBS/DAY)	(LBS/DAY)	LIMIT	ACTUAL
MONTH			MV)			(LBS/DAY)	(LBS/DAY)
	LIMIT:610		ΛΙΤ:Ś	LIMIT:500	LIMIT:458	(
		S-4191	S-4193				
1	360	4	4	327	47	661	126
2		4	4	328	45	661	126
3	358	4	4	326	43	664	125
4	385	4	4	349	52	646	134
5	391	4	4	356	44	646	137
6	374	4	4	340	38	657	131
7	381	4	4	346	44	651	133
8	372	4	4	341	41	657	131
9	372	4	4	338	40	658	130
10	370	4	4	337	38	659	129
11	367	4	4	335	42	660	129
12	375	4	4	344	47	653	132
13		4	4	353	42	648	136
14		4	4	347	39	653	133
15	382	4	4	347	47	649	133
16		4	4	335	48	656	129
17	369	4	4	336	46	657	129
18		4	4	332	47	658	128
19	370	4	4	336	45	657	129
20	375	4	4	341	48	653	131
21	373	4	4	340	42	656	131
22	381	4	4	346	43	652	133
23	400	4	4	364	52	638	140
24	386	4	4	351	45	648	135
25	376	4	4	343	42	655	132
26	401	4	4	365	50	638	140
27	417	4	4	380	54	628	146
28	409	4	4	373	59	630	143
29	411	4	4	374	57	630	144
30	374	4	4	340	42	655	131
31	368	4	4	337	37	661	129
TOTAL	11765			10703	1406		4116

COMPANY:

SHELL OIL PRODUCTS CO.

SOURCE: COGEN S-4190,

PLANT NO: MONTH: 11

Jan 2008

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					
1/04/08	10:00	1H 35M	Action limit, recalibrated					
1/08/08	09:05	1H 5M	Action limit, recalibrated					
]						
			·					

COMPANY:

SHELL OIL PRODUCTS CO.

PLANT NO:

11

MONTH: February 2008

POLLUTANT	12-MONTH EMI	SSION LIMITS	MONTHLY TRI	GGER LEVELS
	LIMIT (TON/YR)	ACTUAL (TON/YR)	LIMIT (TON/MO)	ACTUAL (TON/MO)
NO				
NOx	199.4	93.7	20.8	8.11
СО	252.4	174.7	26.3	14.68
SO2	139.7	94.4	14.6	10.46
PM/PM10	59.1	40.9	6.2	3.40
POC	132.0	73.7	13.7	5.92

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

COMPANY:

SHELL OIL PRODUCTS CO. SOURCE: FUEL USE SUMMARY

PLANT NO:

11

MONTH: February 2008

FUEL TYPE (MMBTU)	COGEN	HP-3	FURNACES w/ SCR	FURNACES w/ LOW NOX BURNERS
RFG	93524	143302	61719	0
FXG	0	78127	63444	0
PSA	0	359656	· 0	0
NATURAL GAS	668643	0	0	16682

COMPANY:

SHELL OIL PRODUCTS CO.

SOURCE: EMISSION SUMMARY BY

PLANT NO:

11

TYPE

MONTH: February 2008

TYPE	NOx (LB/MONTH)	CO (LB/MONTH)	SO2 (LB/MONTH)	PM/PM10 (LB/MONTH)	POC (LB/MONTH)
COGEN/BOILERS	10853	12195	1307	3811	9908
FURN ABATED BY SCR	263	4381	6318	626	375
FURN W/ LOW NOx BURN	473	584	10	83	50
HYDROGEN PLANT	4624	12201	8825	2186	1239
OTHERS*	0	0	0	o	О
RAIL/TRUCK LOADING	0	0	0	99	0
SCOT UNIT	NA	NA	4462	NA	NA
TANKS	0	0	0	0	260
TOTAL	16213	29360	20921	6805	11833

^{*} OTHER emissions are from flaring events

COMPANY:

SHELL OIL PRODUCTS CO.

SOURCE:

COGEN S-4190,

PLANT NO:

11

S-4191, S-4192, S-4193

MONTH: February 2008

CONDITION: 24

DAY	NOX	3 HR	MAX	POC	SO2	PM10	PM10
OF		1		(LBS/DAY)	_	LIMIT	ACTUAL
MONTH	(250/5/(1)		MV)	(200/2/11)	(LBO/B/(I)		(LBS/DAY)
Wientin	LIMIT:610		MIT:5	LIMIT:500	LIMIT:458	(LDO/DAT)	(LDO/DAT)
	L	S-4191	S-4193	LIIVII 1.500	LIIVII 1 .430		
1	375	4	4	340	40	656	131
2		4	4	344	41	- 654	132
3		4	4	334	39	659	128
4	371	4	4	336	45	656	129
5		4	4	337	46	656	130
6		4	4	340	47	654	131
7	367	4	4	334	44	658	128
8		4	4	334	42	658	129
9	357	4	4	333	43	664	128
10	364	4	4	332	44	660	128
11	364	4	4	331	45	660	127
12	361	4	4	328	46	661	126
13	371	4	4	335	49	654	129
14	385	4	4	352	56	644	135
15	409	4	4	373	58	631	144
16	417	4	4	379	. 60	626	146
17	410	4	4	374	58	630	144
18	401	4	4	368	77	627	142
19	374	4	4	344	47	654	132
20	366	4	4	335	41	660	129
21	359	4	4	334	37	666	129
22	368	5	4	334	37	661	128
23	370	4	4	337	38	660	130
24	367	4	4	333	38	661	128
25	374	4	4	340	36	658	131
26	351	4	4	335	36	670	129
27	372	4	4	339	36	659	130
28	373	4	4	339	40	657	130
29	366	4	4	333	41	660	128
TOTAL	10853			9909	1307		3811

COMPANY:

SHELL OIL PRODUCTS CO.

PLANT NO:

11

MONTH: March 2008

l .	12-WONTH LIVI	SSION LIMITS	MONTHLY TRI	GGER LEVELS	
	LIMIT (TON/YR)	ACTUAL (TON/YR)	LIMIT (TON/MO)	ACTUAL (TON/MO)	
NOx	199.4	92.8	20.8	6.58	
со	252.4	172.8	26.3	13.07	
SO2	139.7	95.8	14.6	9.86	
PM/PM10	59.1	40.2	6.2	2.86	
POC	132.0	71.6	13.7	4.40	
PM/PM10	. 59.1	40.2	6.2		

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

COMPANY:

SHELL OIL PRODUCTS CO. SOURCE: FUEL USE SUMMARY

PLANT NO:

11

MONTH: March 2008

FUEL TYPE (MMBTU)	I		FURNACES w/ SCR	FURNACES w/ LOW NOX BURNERS
RFG	85785	151094	58007	0
FXG	0	83894	70322	o
PSA	0	376269	0	0
NATURAL GAS	435140	0	0	12742

COMPANY: SHELL OIL PRODUCTS CO. SOURCE: EMISSION SUMMARY BY

PLANT NO:

11

TYPE

MONTH: March 2008

TYPE	NOx (LB/MONTH)	CO (LB/MONTH)	SO2 (LB/MONTH)	PM/PM10 (LB/MONTH)	POC (LB/MONTH)
COGEN/BOILERS	7432	8335	1239	2605	6772
FURN ABATED BY SCR	454	4491	5511	642	385
FURN W/ LOW NOx BURN	471	446	8	64	38
HYDROGEN PLANT	4798	12838	7691	2304	1307
OTHERS*	6	30	696	o	34
RAIL/TRUCK LOADING	0	0	0	101	o
SCOT UNIT	NA	NA	4570	NA	NA
TANKS	0	0	0	0	271
TOTAL	13161	26141	19715	5715	8808

^{*} OTHER emissions are from flaring events

COMPANY: SHELL OIL PRODUCTS CO. SOURCE: COGEN S-4190,

PLANT NO: 11 S-4191, S-4192, S-4193

MONTH: March 2008 CONDITION: 24

DAY	NOX		MAX	POC	SO2	PM10	PM10
OF	(LBS/DAY)			(LBS/DAY)	(LBS/DAY)	LIMIT	ACTUAL
MONTH		(PP	MV)			(LBS/DAY)	(LBS/DAY)
	LIMIT:610	LIN	MIT:5	LIMIT:500	LIMIT:458		
		S-4191	S-4193				
1	368	4	4	333	45	658	128
2	366	4	4	332	49	657	128
3	366	4	4	333	51	656	128
4	365	4	4	332	46	659	128
5	367	4	4	332	54	655	128
6	376	4	4	342	53	650	132
7	375	4	4	341	49	652	131
8	223	4	5	204	42	735	79
9	218	4	S/D	202	45	736	78
10	211	4	0	193	40	742	74
11	191	4	0	174	33	755	67
12	191	4	0	175	35	754	67
13	194	4	0	177	35	753	68
14	202	4	0	184	38	748	71
15	201	4	0	183	36	749	71
16	202	4	0	185	40	747	71
17	204	4	0	187	43	744	72
18	208	4	0	189	43	743	73
19	208	4	0	189	42	743	73
20	208	4	0	191	42	743	73
21	203	4	0	185	38	747	71
22	197	4	0	180	34	752	69
23	196	4	0	178	31	754	69
24	192	4	0	175	29	756	67
25	195	4	0	178	30	754	69
26	210	4	0	191	38	744	74
27	206	4	0	188	36	747	72
28	206	4	0	189	37	746	73
29	200	4	0	182	33	751	70
30	190	4	0	173	33	756	67
31	192	4	0	175	36	754	67
TOTAL	7432			6774	1239		2605

COMPANY:

SHELL OIL PRODUCTS CO.

SOURCE: COGEN S-4190,

PLANT NO: MONTH: 11

Mar 2008

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
3/20/08	8:35	40min	Changed calibration standard. Verified new standard
3/20/08	10:00	3hr 45min	SO2 failed auto cal, faulty solenoid or relay.
3/20/08	20:20	1hr 5min	Replaced solenoid.
		}	