APPENDIX A.1

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT: RULES AND FINES FOR NOVs SETTLED

No	REFINERY	NOV	DATE	RULE	Days of Violation	# of Violations	Violation days	Fine ($/day/ violation)	**Total Fine**	E/A	Comment
1	1	**P 10983**	12/3/1996	402	1	1	1	15000.00	**$15,000**	E	Public Nuisance (odors)
2	1	**P 10985**	1/28/1997	1173 c1	1	2	2	600.00	**$1,200**	E	Leaking VOC at Coker
3	1	**P 10987**	3/5/1997	1173 c1	1	12	12	450.00	**$5,400**	E	Leaking VOC at LPG Loading Rack
4	1	**P 10988**	3/6/1997	1173 c1	1	6	6	350.00	**$2,100**	E	Leaking VOC at Crude & Hydrocracker
5	1	**P 10990**	3/25/1997	1173 c1	1	1	1	500.00	**$1,000**	E	Leaking VOC at #3 Reformer
				1173 c3	1	1	1	500.00		E	
6	1	**P 10994**	6/5/1997	1173 c2	1	1	1	5000.00	**$5,000**	E	Valve leaked @ 19 drops/min
7	1	**P 10996**	6/18/1997	1173 c1	1	2	2	250.00	**$500**	E	Leaking VOC at Hydrocracker
8	1	**P 10997**	6/8/1997	402	1	1	1	10000.00	**$10,000**	E	Public Nuisance
9	1	**P 10999**	6/24/1997	1173 c1	1	4	4	500.00	**$2,000**	E	Leaking VOC at Hydrogen Plant
10	1	**P 11000**	6/25/1997	221b	1	1	1	1500.00	**$1,500**	E	Visible airbone Coke dust
11	1	**P 11152**	7/29/1997	1173 c1	0		0		**Dismissed**	E	
12	1	**P 11153**	8/7/1997	402	1	1	1	10000.00	**$10,000**	E	Public nuisance
13	1	**P 11154**	8/21/1997	402	0		0		**Dismissed**	E	
14	1	**P 11155**	9/16/1997	1173 c1	1	2	2	250.00	**$500**	E	Leaking VOC at LED and light hydro
15	1	**P 11158**	10/15/1997	401	1	1	1	5500.00	**$5,500**	E	Visible Emissions from Coker Drum
16	1	**P 11161**	10/30/1997	402	1	1	1	10000.00	**$10,000**	E	Public nuisance
17	1	**P 11162**	11/18/1997	1173 c1	1	1	1	1000.00	**$1,000**	E	Leaking VOC at NESHAPS Unit
18	1	**P 11166**	12/16/1997	1173 c1	1	1	1	1000.00	**$1,000**	E	Leaking VOC at #2 Reformer
19	1	**P 11169**	3/18/1998	1173 c1	1	1	1	1750.00	**$3,500**	E	Leaking VOC at Alky Unit
				1173 c3	1	1	1	1750.00		E	
20	1	**P 11170**	2/22/1998	430a	1	1	1	1000.00	**$2,000**	A	Failure to report Breakdown timely
				203b	1	1	1	1000.00		E	Oper. of flare contrary to permit
21	1	**P 11171**	3/23/1998	402	1	1	1	15000.00	**$15,000**	E	Public nuisance
22	1	**P 11172**	3/19/1998	402	1	1	1	15000.00	**$15,000**	E	Public nuisance
23	1	**P 11173**	5/6/1998	401 b1B	1	1	1	7000.00	**$7,000**	E	Visible Emission
24	1	**P 11175**	5/20/1998	402	1	1	1	15000.00	**$15,000**	E	Public nuisance
25	1	**P 11264**	11/18/1998	1173 c1	1	1	1	1000.00	**$2,000**	E	Leaking VOC (connector)
				1173 c3	1	2	2	500.00		E	Leaking VOC (2 OEL)

* Unable to determine

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No	REFINERY	NOV	DATE	RULE	Days of Violation	# of Violations	Violation days	Fine ($/day/ violation)	**Total Fine**	E/A	Comment
26	1	**P 11265**	12/10/1998	1173 c1	1	1	1	1000.00	**$1,000**	E	Leaking VOC at Reforming Unit
27	1	**P 11266**	1/20/1999	1173 c1	1	3	3	800.00	**$2,400**	E	Leaking VOC at Alky Unit
28	1	**P 11267**	1/21/1999	1173 c1	1	5	5	640.00	**$3,200**	E	Leaking VOC at FCCU and Hydrocrkr
29	1	**P 11269**	2/4/1999	1173 c1	1	1	1	700.00	**$700**	E	Leaking VOC at Superfractionator
30	1	**P 11270**	8/1/1997	2012 d2B	1	1	1	UD*	**UD***	A	[1]RECLAIM rule
31	1	**P 11271**	4/20/1999	1173 c3	1	3	3	UD*	**UD***	E	[1]Leaking VOC at FCCU and Coker Flares (18 NOVs with $514,300 fine)
32	1	**P 11273**	6/9/1999	1173 c1	1	4	4	UD*	**UD***	E	[1]Leaking VOC at FCCU
33	1	**P 11274**	6/12/1999	203b	1	1	1	UD*	**UD***	E	[1]Excess BAC limit of NOx at Cogen
34	1	**P 11275**	5/13/1999	1176 e1	1	4	4	UD*	**UD***	E	[1]4 counts violated both rules at Lift Station #2
				1176 e2Bi	0	0	0	UD*		E	
35	1	**P 11276**	7/29/1999	1173 c1	1	2	2	UD*	**UD***	E	Leaking NOV at Hydrogen Plant
36	1	**P 11277**	4/17/1999	Reg IX, subpart J 40 CFR 60.104 a2i	7	1	7	UD*	**UD***	E	[1]New Source Performance Standard Rule (SO2 > 250 ppm) at D Claus Unit
37	1	**P 11355**	3/11/1998	402	1	1	1	10000.00	**$10,000**	E	Public Nuisance at FCCU
38	1	**P 11368**	8/12/1998	402	1	1	1	5000.00	**$5,000**	E	Public Nuissance at Oil Tank
39	1	**P 11371**	9/29/1998	203 b	1	13	13	UD*	**UD***	A	[1]Failure to calibrate CEM
				1176 e1	1	2	2	UD*		E	Leaking VOC at Cogen
40	1	**P 11372**	9/30/1998	1176 e1	1	6	6	UD*	**UD***	E	[1]Leaking VOC at Oil trap
				1173 c1	1	1	1	UD*		E	Leaking VOC at Lift Station
				203 b	1	7	7	UD*		A	Failure to tune up heater
				1158 c3	1	2	2	UD*		E	Open Coke pile outside
41	1	**P 11374**	10/1/1998	203 b	1	2	2	UD*	**UD***	A	[1]CEM device not calibrated
				1173 c1	1	1	1	UD*		E	1 component leaking > 87 k ppm
				1176 e1	1	2	2	UD*		E	2 points leaking > 500 ppm
42	1	**P 11375**	10/6/1998	203 b	182	2	364	UD*	**UD***	A	[1]Failure to install Air Pollution Ctrl equ.
				1176 e1	1	1	1	UD*		E	Leaking at Junction Box
43	1	**P 11376**	10/7/1998	1176 e1	1	6	6	400.00	**$2,750**	E	Leaking VOC at Junctions Boxes

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No	REFINERY	NOV	DATE	RULE	Days of Violation	# of Violations	Violation days	Fine ($/day/ violation)	**Total Fine**	E/A	Comment
43	1	P 11376	10/7/1998	1176 e5A	1	1	1	350.00	$2,750	E	Open to atm JB
44	1	**P 11377**	10/23/1998	402	1	1	1	15000.00	**$15,000**	E	Public Nuisance (additional $5000 for SEP)
45	1	**P 11462**	9/4/1997	1173 c1	1	4	4	375.00	**$1,500**	E	Leaking 2 TC and 2 valves at LPG
46	1	**P 11463**	9/11/1997	1158 c3	1	1	1	2500.00	**$5,000**	E	Emissions of black dust from load trucks
47				221b	1	1	1	2500.00		A	Violated PCSC Plan
48	1	**P 11481**	11/1/1997	401 b1A	1	1	1	1500.00	**$1,500**	E	Visible Emmision from FCCU Flare
49	1	**P 11482**	1/16/1998	402	1	1	1	10000.00	**$10,000**	E	Public Nuisance
50	1	**P 11656**	6/30/1999	401	1	1	1	UD*	**UD***	E	[1]Visible Emission
51	1	**P 11847**	11/17/1997	401 b1B	1	1	1	500.00	**$500**	E	Opacity - Visible emission
52	1	**P 13410**	8/29/1997	Reg X, subpart M 40 CFR part 61M	64	1	64	UD*	**UD***	E	[1]Failure to notify AQMD 45 days prior to excavating an abestos site
53	1	**P 25693**	2/10/1999	402	1	1	1	UD*	**UD***	E	[1]Public nuissance
54	1	**P 28351**	5/6/1999	402	1	1	1	UD*	**UD***	E	[1]Public nuissance
55	2	**P 11163**	11/20/1997	401 b1A	1	1	1	UD*	**UD***	E	[2]Visible Emission
56	2	**P 11357**	12/20/1997	1176 e1	0		0		**dimissed**	E	by District
57	2	**P 11380**	12/3/1998	1173 c1	1	2	2	1000.00	**$2,000**	E	Leaking VOC at Reforming Unit
58	2	**P 11381**	12/23/1998	1173 c1	1	3	3	1333.33	**$4,000**	E	Leaking VOC at Hydrocracker
59	2	**P 11382**	1/19/1999	1173 c1	1	4	4	750.00	**$3,000**	E	Leaking VOC at Alky and LPG
60	2	**P 11383**	1/21/1999	1173 c1	1	3	3	500.00	**$1,500**	E	Leaking VOC at Reformer and LPG rack
61	2	**P 11385**	2/17/1999	1176 e1	1	4	4	1500.00	**$6,000**	E	Leaking VOC at WWS
62	2	**P 11386**	3/5/1999	1176 e1	3	2	6	1000.00	**$27,000**	E	2 leaking at API hatches for 2 days ;
				1176 e3A	7	1	7	1500.00		E	2 major leakings > 100k for 7 days
				1176 e5A	7	1	7	1500.00		E	
63	2	**P 11388**	3/4/1999	1176 e1	1	1	1	500.00	**$1,000**	E	Leaking at WWS
				1176 e3A	1	1	1	500.00		E	
64	2	**P 11389**	3/11/1999	1176 e1	1	1	1	1000.00	**$1,000**	E	Follow-up NOV P 11386
65	2	**P 11390**	3/10/1999	1176 e2Bi	1	1	1	2000.00	**$2,000**	E	Lekaing VOC at WWS

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No	REFINERY	NOV	DATE	RULE	Days of Violation	# of Violations	Violation days	Fine ($/day/ violation)	**Total Fine**	E/A	Comment
66	2	**P 11391**	4/29/1999	402	1	1	1	3000.00	**$3,000**	E	Public Nuissance
67	2	**P 11392**	6/17/1999	1173 c1	1	3	3	1000.00	**$3,000**	E	Leaking VOC at compressors
68	2	**P 11393**	6/18/1999	1173 c1	1	2	2	2500.00	**$7,000**	E	Leaking VOC at Coker
				1173 c3	1	1	1	2000.00		E	
69	2	**P 11394**	6/29/1999	1173 c1	1	1	1	1000.00	**$1,000**	E	Leaking VOC at Hydrotreater
70	2	**P 11395**	6/23/1999	203b	1	2	2	1000.00	**$11,000**	A	Not keeping records of operation and conducting inspection of 8 engines
					1	6	6	1500.00		A	
71	2	**P 11400**	12/9/1999	1173 c1	1	2	2	1000.00	**$6,500**	E	Leaking VOC
				1173 c3	1	3	3	1500.00		E	
72	2	**P 11451**	5/5/1997	203b	1	1	1	1000.00	**$1,000**	E	Equipment not operated as permit
73	2	**P 11453**	5/28/1997	401 b1A	1	1	1	1000.00	**$1,000**	E	Visible Emission
74	2	**P 11454**	6/17/1997	1173 c3	1	5	5	500.00	**$2,500**	E	Leaking VOC at Coker
75	2	**P 11455**	6/26/1997	1173 c1	1	5	5	900.00	**$4,500**	E	Leaking VOC at Unifining
76	2	**P 11459**	8/8/1997	1173 c1	1	1	1	750.00	**$1,500**	E	Leaking VOC at Crude Unit
				1173 c3	1	1	1	750.00		E	
77	2	**P 11464**	9/11/1997	1173 c1	1	5	5	1500.00	**$7,500**	E	Leaking VOC at LPG
78	2	**P 11470**	8/21/1997	1176 e1	1	3	3	500.00	**$6,500**	E	Leaking VOC at WWS
				1176 e2Bvi	1	2	2	750.00		E	Leaking VOC at WWS
				1176 e2Bi	1	1	1	2000.00		E	Leaking VOC at WWS
				1176 e5A	1	1	1	1500.00		E	Leaking VOC at WWS
79	2	**P 11471**	12/11/1997	1173 c1	1	1	1	1500.00	**$1,500**	E	Leaking VOC
80	2	**P 11473**	11/12/1997	430 b1	1	1	1	UD*	**UD***	A	[2]Failure to report breakdown in time
				203 b	1	1	1			E	2 lbs NOx released
				2004 i1Ai	1	1	1			A	RECLAIM
				2004 f1	1	1	1			A	RECLAIM
81	2	**P 11474**	9/26/1997	430 b1	4	1	4	UD*	**UD***	A	[2]Failure to report breakdown in time
				203b	4	1	4	UD*		E	1000 lbs NOx released
				2004 i1Ai	4	1	4	UD*		A	RECLAIM
				2004 f1	4	1	4	UD*		A	RECLAIM
82	2	**P 11479**	9/5/1998	203 b	1	1	1	UD*	**$1,000**	E	Leaking at Reformer and Hydrocracker

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SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT: RULES AND FINES FOR NOVs SETTLED

No	REFINERY	NOV	DATE	RULE	Days of Violation	# of Violations	Violation days	Fine ($/day/ violation)	**Total Fine**	E/A	Comment
83	2	**P 11486**	2/8/1998	203a	450	1	1	16.67	**$7,500**	A	2 engines operated w/o permit
				203b	450	1	1			A	1 engine operated w/o record as PC
84	2	**P 11491**	3/20/1998	1173 c1	1	2	2	1500.00	**$6,000**	E	Leaking VOC at FCCU
				1173 c3	1	2	2	1000.00		E	Leaking VOC at FCCU
				1176 e5A	1	1	1	1000.00		E	Leaking VOC at FCCU
85	2	**P 11493**	4/2/1998	1173 c1	1	1	1	1500.00	**$1,500**	E	Leaking VOC at Penex-Plus Unit
86	2	**P 11494**	6/30/1997	2011 f3	1	1	1	1250.00	**$6,000**	A	1. *$2500* (rule 2011 f3, 2012 h3)
				2011 d2B	1	1	1	500.00		A	2. $1500/quarter x 1 qtr = *$1,500* (rule 2011
				2012 d2B	1	1	1	750.00		A	d2b, 2012 e2b, 2004 b4)
				2012 e2B	1	1	1	750.00		A	3. $500/month x 3 mos = *$1,500* (rule 2011
				2013 e2B	1	1	1	500.00		A	d2b, 2012 e2b)
				2012 h3	1	1	1	1250.00		A	4. *$500* (rule 2004-b2, b4)
				2004 b2	0	1	1	500.00		A	
				2004 b4	1	1	1			A	
				2005 b4	1	1	1	500.00		A	
87	2	**P 11495**	4/29/1998	203 b	1	1	1	1000.00	**$1,000**	E	Leaking H2S at Sulfur Pit
88	2	**P 11498**	4/30/1998	1173 h2					**Dismissed**		Sample gases from the compressor C1B < 10% limit by Rule 1173 h2
89	2	**P 11499**	5/20/1998	1173 c1	1	1	1	1500.00	**$1,500**	E	Leaking at Hydrogen Prod Unit
90	2	**P 11500**	4/23/1998	1176 e1	2	1	2	500.00	**$2,000**	E	Violated both rules at Cogen
				1176 e3b	1	1	1	100.00		E	
91	2	**P 11503**	8/5/1998	1173 c1	1	11	11	1000.00	**$13,500**	E	Leaking at LPG storage
				1173 c2	1	1	1	500.00		E	Leaking at LPG storage
				1173 d2	1	1	1	500.00		E	Leaking at LPG storage
				1176 e3B	1	1	1	1500.00		E	Leaking at LPG storage
92	2	**P 11504**	8/19/1998	1173 c1	1	2	2	500.00	**$2,000**	E	Leaking at Vaccum Flasher Unit
				1174 c1	1	1	1	1000.00		E	
93	2	**P 11505**	6/11/1998	1176 c1	1	1	1	1000.00	**$1,000**	E	Leaking at Coker
				1173 c3	1	1	1	500.00		E	

* Unable to determine

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SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT: RULES AND FINES FOR NOVs SETTLED

No	REFINERY	NOV	DATE	RULE	Days of Violation	# of Violations	Violation days	Fine ($/day/ violation)	**Total Fine**	E/A	Comment
94	2	**P 11509**	9/22/1998	REG IX 40 CFR 60-482-8c1	1	1	1	500.00	**$1,000**	E	Leaking at Unit 118
95	2	**P 11508**	8/8/1998	203b, 2004 f1					**Dimissed**		Valid breakdown reported
96	2	**P 11510**	8/6/1998	1173 e1	1	2	2	1000.00	**$3,000**	E	Leaking at Crude Unit
				1176 e2Bvi	1	1	1	1000.00		E	
97	2	**P 11513**	5/27/1998	2011 kA	358	1	358	UD*	**$17,200**	A	Failure to calibrate gas bottles of 4 CEM violated **Rule 2011kA**: (CEM 6: 35 days, CEM 21: 92 days, CEM 18: 92 days, CEM 19: 139 days) **Rule 2012 mA**: (CEM 6: 35 days, CEM 18: 92 days, CEM 19: 139 days)
				2012 mA	266	1	266	UD*		A	
98	2	**P 11843**	11/17/1997	1173 c1	1	1	1	1000.00	**$1,000**	E	Leaking at Crude Unit
99	2	**P 25691**	2/4/1999	1173 c1	1	3	3	1000.00	**$3,500**	E	Leaking at FCCU (flange, valve, connector)
				1173 c3	1	1	1	500.00		E	Leaking at FCCU (OEL)
100	2	**SRV 7**	12/4/1998	203b	7	1	7	600.00	**$4,200**	E	Self Report for Exceeded gasoline/day at LA terminal
	Total	**100**			**1945**	**272**	**1360**		**$367,650**		

[1] Undetermined amount of total $513,800 for 16 NOVs ($313,800 for civil penalties and $200,000 towards SEP) (P11270, P11271, P11273, P11274, P11275, P11276, P11277, P11371, P11372, P11374, P11375, P11376, P13410, P 28351)

[2] Undetermined amount of total $31,500 for 3 NOVs ($1,500 in civil penalties and $30,000 towards SEP) (P11473, P11474, P11163)

* Unable to determine

APPENDIX A.2

BAY AREA AIR QUALITY MANAGEMENT DISTRICT: RULES AND FINES FOR NOVs SETTLED

No	REFINERY	NOV	DATE	RULE	Days of Violation	# of Violations	Violation days	Fine ($/day/ violation)	**Total Fine**	E/A	Comment
1	3	**30615**	1/3/1997	1-522.4	1	1	1	$216	**$216**	A	Failure to report
2	3	**29310**	1/6/1997	8-18-303	1	1	1	$457	**$1,051**	E	Leaking VOC
			1/6/1997	8-18-303	1	1	1	$594		E	Leaking VOC
3	3	**29311**	1/13/1997	8-5-320	1	1	1	$366	**$366**	E	Leaking VOC
4	3	**29313**	1/30/1997	8-5-311.1	1	1	1	$1,085	**$1,085**	E	Leaking VOC
5	3	**29312**	1/31/1997	8-8-302.4	1	1	1	$604	**$604**	E	Leaking VOC
6	3	**30609**	2/5/1997	2-1-307	1	1	1	$677	**$677**	E	Leaking VOC
7	3	**29314**	3/4/1997	8-18-303	1	3	3	$522	**$1,566**	E	Leaking VOC
8	3	**29315**	3/4/1997	8-18-303	1	1	1	$558	**$558**	E	Leaking VOC
9	3	**29316**	3/4/1997	8-18-303	1	2	2	$518	**$1,036**	E	Leaking VOC
10	3	**29317**	3/5/1997	8-18-303	1	1	1	$800	**$800**	E	Leaking VOC
11	3	**29318**	3/5/1997	8-18-303	1	1	1	$800	**$800**	E	Leaking VOC
12	3	**29319**	3/5/1997	8-18-303	1	6	6	$800	**$4,800**	E	Leaking VOC
13	3	**29320**	3/6/1996	8-18-303	1	1	1	$800	**$800**	E	Leaking VOC
14	3	**29321**	3/6/1997	8-18-303	1	5	5	$800	**$4,000**	E	Leaking VOC
15	3	**29323**	4/9/1997	8-18-303	1	2	2	$800	**$1,600**	E	Leaking VOC
16	3	**29324**	4/24/1997	8-18-303	1	1	1	$800	**$800**	E	Leaking VOC
17	3	**29325**	4/24/1997	8-18-302.4	1	1	1	$701	**$701**	E	Leaking VOC
18	3	**30457**	6/25/1997	1-440	1	1	1	$368	**$368**	A	Denied Right to Acess
19	3	**31027**	6/25/1997	8-18-303	1	1	1	$800	**$800**	E	Leaking VOC
20	3	**31028**	6/25/1997	8-18-303	1	3	3	$800	**$2,400**	E	Leaking VOC
21	3	**31029**	6/25/1997	8-18-303	1	1	1	$800	**$800**	E	Leaking VOC
22	3	**31514**	7/12/1997	9-1-307	1	1	1	$302	**$302**	E	High SO2
23	3	**31030**	7/18/1997	8-18-303	1	1	1	$800	**$800**	E	Leaking VOC
24	3	**31501**	8/4/1997	9-1-307	1	1	1	$309	**$309**	E	Leaking VOC
25	3	**31502**	8/6/1997	Reg 10	1	1	1	$372	**$372**	E	Leaking VOC
26	3	**30024**	9/2/1997	1-301	1	1	1	$1,700	**$1,700**	E	Plum of CO Boiler
27	3	**31515**	9/4/1997	Reg 10	1	1	1	$403	**$403**	E	High H2S
28	3	**31031**	10/8/1997	8-18-303	1	3	3	$800	**$2,400**	E	Leaking VOC
29	3	**31032**	10/8/1997	8-18-303	1	1	1	$800	**$800**	E	Leaking VOC
30	3	**31033**	10/30/1997	8-18-303	1	1	1	$800	**$800**	E	Leaking VOC

* Unable to determine

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BAY AREA AIR QUALITY MANAGEMENT DISTRICT: RULES AND FINES FOR NOVs SETTLED

No	REFINERY	NOV	DATE	RULE	Days of Violation	# of Violations	Violation days	Fine ($/day/ violation)	**Total Fine**	E/A	Comment
31	3	**31034**	12/2/1997	8-18-303	1	1	1	$800	**$800**	E	Leaking VOC
32	3	**31437**	12/26/1997	Reg 10	1	1	1	$353	**$353**	E	Excess H2S
33	3	**31436**	12/26/1997	Reg 10	1	1	1	$353	**$353**	E	Leaking VOC
34	3	**32377**	12/30/1997	1-522.7	1	1	1	$125	**$125**	A	Failure to report excess H2S
35	3	**31042**	1/12/1998	8-8-302	2	1	2	$259	**$1,152**	E	Variance denied
			1/12/1998	8-8-303	2	1	2	$259		E	
			1/12/1998	2-1-307	2	1	2	$108		E	
36	3	**31038**	1/21/1998	8-18-303	1	4	4	$800	**$3,200**	E	Leaking VOC
37	3	**31439**	1/25/1998	9-1-307	1	1	1	$297	**$297**	E	Leaking VOC
38	3	**31039**	1/27/1998	8-18-303	1	1	1	$800	**$800**	E	Leaking VOC
39	3	**32378**	1/29/1998	9-2-301	1	1	1	$196	**$196**	E	Excess H2S on GLM, but undetermined
40	3	**31440**	1/31/1998	9-1-307	1	1	1	$273	**$273**	E	Excess SO2
41	3	**31040**	2/11/1998	8-5-322.5	1	1	1	$900	**$900**	E	Leaking VOC
42	3	**31434**	3/8/1998	1-301	1	1	1	$1,000	**$1,000**	E	(5000.00)?
43	3	**32386**	3/21/1998	9-1-307	1	1	1	$125	**$438**	E	Breakdown at SRU #4
			3/21/1998	2-1-307	1	1	1	$313		E	
44	3	**31441**	4/1/1998	6-301	1	1	1	$244	**$244**	E	Visible Emission
45	3	**31442**	4/7/1998	8-5-311.3	1	1	1	$669	**$669**	E	Leaking VOC
46	3	**32387**	4/8/1998	9-1-307	1	1	1	$125	**$125**	E	Excess SO2
47	3	**31444**	4/14/1998	8-5-311.3	1	1	1	$729	**$729**	E	Leaking VOC
48	3	**31445**	4/14/1998	8-5-311.3	1	1	1	$725	**$725**	E	Leaking VOC
49	3	**31448**	4/29/1998	8-5-311.3	1	1	1	$831	**$831**	E	Leaking VOC
50	3	**31449**	5/6/1998	8-5-322.5	1	1	1	$1,000	**$1,000**	E	Leaking VOC
51	3	**31450**	5/7/1998	8-5-320.6	1	1	1	$933	**$933**	E	Leaking VOC
52	3	**32388**	5/7/1998	2-1-307	1	1	1	$313	**$438**	E	Excess SO2
			5/7/1998	9-1-307	1	1	1	$125		E	
53	3	**32379**	6/3/1998	8-5-320.2	1	1	1	$787	**$1,661**	E	Leaking VOC
			6/3/1998	8-5-320.4	1	1	1	$874		E	
54	3	**32380**	6/3/1998	8-5-320.4	1	1	1	$787	**$787**	E	Leaking VOC
55	3	**32393**	6/16/1998	9-2-301	1	1	1	$125	**$125**	E	Excess H2S

* Unable to determine

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BAY AREA AIR QUALITY MANAGEMENT DISTRICT: RULES AND FINES FOR NOVs SETTLED

No	REFINERY	NOV	DATE	RULE	Days of Violation	# of Violations	Violation days	Fine ($/day/ violation)	**Total Fine**	E/A	Comment
56	3	**32394**	7/10/1998	9-1-307	1	1	1	$125	**$125**	E	Breakdown at SRU
57	3	**32384**	7/15/1998	8-5-311.3	1	1	1	$188	**$188**	E	Leaking VOC
58	3	**32385**	7/22/1998	8-18-314	1	3	3	$250	**$750**	E	Leaking VOC
59	3	**32396**	8/6/1998	9-1-307	1	1	1	$125	**$125**	E	SRU shut down, high SO2
60	3	**32389**	8/11/1998	8-5-311.3	1	1	1	$169	**$169**	E	Breakdown on SRU
61	3	**32390**	8/11/1998	8-5-311.3	1	1	1	$169	**$169**	E	Leaking VOC
62	3	**32391**	9/8/1998	1-301	1	1	1	$10,000	**$10,000**	E	31 COMPLAINTS
63	3	**32397**	9/22/1998	9-2-301	1	1	1	$125	**$125**	E	High H2S
64	3	**3083**	10/7/1998	9-1-307	1	1	1	$1,500	**$5,500**	E	High SO2
			10/7/1998	2-1-307	1	1	1	$3,000		E	
			10/7/1998	Reg 10	1	1	1	$1,000		E	
65	3	**3082**	10/20/1998	9-1-307	1	1	1	$2,192	**$3,692**	E	High SO2
			10/20/1998	9-1-307	1	1	1	$1,500		E	
66	3	**3091**	12/13/1998	9-1-307	1	1	1	$1,500	**$4,500**	E	High SO2
			12/14/1998	2-1-307	1	1	1	$3,000		E	
67	3	**3092**	12/18/1998	1-522.6	1	1	1	$500	**$500**	A	CEM Failure
68	3	**3084**	1/13/1999	8-18-304	1	3	3	$1,500	**$4,500**	E	Leaking VOC
69	3	**3085**	1/14/1999	8-18-304	1	13	13	$750	**$9,750**	E	Leaking VOC
70	3	**3086**	1/14/1999	8-18-304	1	3	3	$650	**$1,950**	E	Leaking VOC
71	3	**3087**	1/27/1999	8-18-304	1	1	1	$750	**$750**	E	Leaking VOC
72	3	**3088**	1/27/1999	8-18-304	1	1	1	$1,500	**$1,500**	E	Leaking VOC
73	3	**3089**	1/27/1999	8-18-304	1	1	1	$750	**$750**	E	Leaking VOC
74	3	**3090**	1/27/1999	8-18-304	1	2	2	$1,500	**$3,000**	E	Leaking VOC
75	3	**3096**	3/3/1999	8-18-304	1	3	3	$1,500	**$4,500**	E	Leaking VOC
76	3	**3095**	3/3/1999	8-18-304	1	1	1	$750	**$750**	E	Leaking VOC
77	3	**3735**	8/24/1999	8-5-311.3	1	2	2	$518	**$1,036**	E	
78	3	**3742**	8/26/1999	3-2-301	1	1	1	$116	**$116**	E	Excess H2S
79	3	**3736**	9/25/1999	8-5-311.3	1	1	1	$518	**$518**	E	Leaking VOC
80	3	**4213**	1/2/2000	3-2-301	1	1	1	$116	**$116**	E	
81	4	**31510**	12/16/1996	1-522.7	1	1	1	$1,000	**$1,000**	A	104 DAYS NO REPORTING excess CO
82	4	**31512**	1/13/1997	2-1-307	3	1	3	$367	**$1,100**	E	42 DAYS NO REPORTING excess CO

* Unable to determine

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No	REFINERY	NOV	DATE	RULE	Days of Violation	# of Violations	Violation days	Fine ($/day/ violation)	**Total Fine**	E/A	Comment
83	4	**31506**	1/19/1997	1-522.7	1	2	2	$290	**$580**	A	NO REPORTING excess CO
84	4	**30060**	1/31/1997	2-1-307	1	1	1	$1,000	**$1,000**	E	Leaking NOV
85	4	**30059**	1/31/1997	2-1-307	1	4	4	$1,000	**$1,000**	E	Leaking NOV
86	4	**30057**	1/31/1997	2-1-307	1	8	8	$125	**$1,000**	E	Leaking NOV
87	4	**30058**	2/3/1997	8-8-307.1	1	6	6	$54	**$324**	E	Leaking NOV
88	4	**31165**	2/13/1997	2-1-307	1	1	1	$425	**$425**	E	High NOx
89	4	**29148**	2/17/1997	1-301	1	1	1	$5,000	**$5,000**	E	5 COMPLAINTS
90	4	**30985**	2/19/1997	2-1-307	1	1	1	$1,000	**$1,351**	E	High NOx
			2/19/1997	1-522.7	1	1	1	$351		A	
91	4	**31513**	2/22/1997	2-1-307	38	1	38	$11	**$425**	E	38 days of excess CO emissions
92	4	**30988**	2/24/1997	1-522.4	1	1	1	$396	**$396**	A	Failure to provide proof of repair on CEM
93	4	**31507**	3/7/1997	2-1-307	25	1	25	$88	**$2,000**	E	25 day of excess CO emissions
94	4	**30062**	3/10/1997	8-18-303	1	5	5	$734	**$4,348**	E	Leaking VOC
			3/10/1997	8-18-307	1	2	2	$339		E	
95	4	**30061**	3/10/1997	8-18-307	1	1	1	$694	**$694**	E	Leaking VOC
96	4	**30063**	3/10/1997	8-18-303	1	5	5	$694	**$4,109**	E	Leaking VOC
			3/10/1997	8-18-307	1	1	1	$639		E	
97	4	**30064**	3/11/1997	8-18-303	1	13	13	$719	**$10,010**	E	Leaking VOC
			3/11/1997	8-18-307	1	1	1	$663		E	
98	4	**30065**	3/11/1997	8-18-303	1	5	5	$694	**$3,470**	E	Leaking VOC
99	4	**30072**	3/31/1997	9-9-503.2	1	1	1	$225	**$225**	A	Failure to certify a CEM
100	4	**30067**	3/31/1997	8-18-303	1	1	1	$1,000	**$1,000**	E	Leaking VOC
101	4	**30066**	3/31/1997	8-18-303	1	1	1	$1,000	**$1,000**	E	Leaking VOC
102	4	**30068**	4/2/1997	1-301	1	1	1	$2,000	**$2,000**	E	6 COMPLAINTS
103	4	**31000**	4/12/1997	1-522.3	1	1	1	$420	**$420**	A	Failure to test the new package testing monitors and reported the results
104	4	**30069**	4/14/1997	8-18-303	1	1	1	$1,000	**$1,000**	E	Leaking VOC
105	4	**30071**	4/15/1997	8-18-303	1	1	1	$1,000	**$1,000**	E	Leaking VOC
106	4	**30070**	4/15/1997	8-18-303	1	2	2	$1,000	**$2,000**	E	Leaking VOC
107	4	**30073**	4/16/1997	1-301	1	1	1	$15,000	**$15,000**	E	Breakdown at SRU
108	4	**30074**	4/16/1997	1-301	1	1	1	$15,000	**$15,000**	E	Breakdown at Hydrotreater

* Unable to determine

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BAY AREA AIR QUALITY MANAGEMENT DISTRICT: RULES AND FINES FOR NOVs SETTLED

No	REFINERY	NOV	DATE	RULE	Days of Violation	# of Violations	Violation days	Fine ($/day/ violation)	**Total Fine**	E/A	Comment
109	4	**30075**	4/16/1997	9-1-307	1	1	1	$173	**$173**	E	
110	4	**31051**	4/16/1997	9-1-307	1	1	1	$174	**$174**	E	
111	4	**31080**	4/28/1997	1-522.4	1	1	1	$448	**$448**	A	Failure to report malfunction on a CEM
112	4	**31169**	5/12/1997	1-522.4	1	1	1	$491	**$491**	A	Failure to report malfunction on a CEM
113	4	**25445**	5/30/1997	8-5-322.5	4	1	4	$325	**$1,300**	E	Odors from gap on Tank
114	4	**31052**	8/11/1997	8-18-303	1	1	1	$1,000	**$1,000**	E	Leaking VOC
115	4	**31053**	8/13/1997	8-18-303	2	2	4	$500	**$2,000**	E	Leaking VOC
116	4	**30023**	8/14/1997	1-301	1	1	1	$1,298	**$1,298**	E	7 COMPLAINTS
117	4	**31517**	8/26/1997	1-522.4	1	1	1	$333	**$781**	A	Failure to report excess NOx
			8/26/1997	9-9-301.3	1	1	1	$448		E	
118	4	**31951**	9/1/1997	2-1-307	1	1	1	$1,000	**$1,000**	E	Excessive NOx
119	4	**25450**	10/7/1997	8-5-322.3	2	1	2	$525	**$1,050**	E	Leaking VOC
120	4	**25449**	10/7/1997	8-5-322.5	7	1	7	$186	**$1,300**	E	Leaking VOC
121	4	**31955**	10/8/1997	8-5-322.5	2	1	2	$525	**$1,050**	E	Leaking VOC
122	4	**31956**	10/8/1997	8-5-322.1	2	1	2	$525	**$1,050**	E	Leaking VOC
123	4	**31054**	10/11/1997	1-301	1	1	1	$7,500	**$7,500**	E	1 COMPLAINT, oil fallout on community
124	4	**31952**	11/17/1997	2-1-307	1	1	1	$1,000	**$1,000**	E	Excess NOx
125	4	**29235**	11/18/1997	2-1-307	1	1	1	$1,000	**$1,000**	E	Leaking VOC
126	4	**29236**	11/20/1997	8-18-303	1	1	1	$1,000	**$1,000**	E	Leaking VOC
127	4	**25446**	11/20/1997	8-18-303	1	2	2	$1,000	**$2,000**	E	Leaking VOC
128	4	**25447**	12/11/1997	8-18-303	2	1	2	$1,150	**$575**	E	Leaking VOC
129	4	**31959**	12/17/1997	2-1-307	1	1	1	$313	**$438**	E	
			12/17/1997	1-522.7	1	1	1	$125		A	Failure to report excess NOx
130	4	**25448**	1/7/1998	1-301	1	1	1	$1,000	**$1,000**	E	Odors, H2S released
131	4	**31953**	1/22/1998	8-2-301	1	1	1	$1,000	**$1,000**	E	Leaking VOC
132	4	**29238**	1/22/1998	2-1-307	1	1	1	$1,000	**$1,000**	E	Excessive NOx
133	4	**31958**	2/27/1998	2-1-307	1	1	1	$1,000	**$1,000**	E	Excessive NOx
134	4	**31954**	4/2/1998	8-18-304.2	1	1	1	$1,000	**$1,000**	E	Leaking VOC
135	4	**31961**	5/17/1998	2-1-307	1	1	1	$313	**$313**	E	Violated PC 476, over limit feed rate at
136	4	**31969**	5/29/1998	9-9-301.3	1	1	1	$750	**$750**	E	Excess NOx
137	4	**31970**	5/29/1998	9-9-301.3	1	1	1	$750	**$750**	E	Excess NOx

* Unable to determine

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BAY AREA AIR QUALITY MANAGEMENT DISTRICT: RULES AND FINES FOR NOVs SETTLED

No	REFINERY	NOV	DATE	RULE	Days of Violation	# of Violations	Violation days	Fine ($/day/ violation)	**Total Fine**	E/A	Comment
138	4	**31962**	6/1/1998	2-1-307	1	1	1	$766	**$766**	A	Failure to meet PC 1694
139	4	**31960**	6/2/1998	8-18-304.2	1	1	1	$325	**$825**	E	
			6/2/1998	8-18-304.2	1	2	2	$250		E	Leaking VOC
140	4	**31967**	8/3/1998	9-2-301	1	1	1	$750	**$750**	E	Leaking VOC
141	4	**31963**	8/3/1998	1-0-301	1	1	1	$15,000	**$15,000**	E	Leaking VOC
142	4	**31968**	8/3/1998	9-2-301	1	1	1	$750	**$750**	E	Excess H2S
143	4	**31964**	8/4/1998	1-0-301	1	1	1	$10,000	**$10,000**	E	5 COMPLAINTS due to odors
144	4	**31965**	9/3/1998	1-0-301	1	1	1	$15,000	**$15,000**	E	Odors
145	4	**31971**	9/12/1998	2-1-307	1	1	1	$800	**$800**	E	High NOx
146	4	**31973**	10/7/1998	8-18-301	1	1	1	$1,000	**$1,000**	E	Leaking VOC
147	4	**31972**	11/18/1998	8-18-401.5	1	1	1	$1,000	**$1,000**	E	Leaking VOC
148	4	**31974**	12/22/1998	8-18-304.2.1	1	1	1	$2,500	**$5,000**	E	Leaking VOC
			12/22/1998	8-18-401.5	1	1	1	$2,500		A	Leaking VOC (Failure to report)
149	4	**31975**	1/5/1999	9-1-301.3	1	1	1	$1,000	**$1,000**	E	
150	4	**3111**	3/25/1999	2-1-307	1	1	1	$1,500	**$1,500**	E	
151	4	**3112**	3/26/1999	2-1-307	1	1	1	$1,500	**$1,500**	E	
152	4	**3108**	3/29/1999	2-1-307	1	1	1	$1,500	**$1,500**	E	
153	4	**3107**	4/20/1999	8-18-304.2.1	16	2	32	$708	**$22,660**	E	
154	4	**3109**	4/21/1999	2-1-307	1	1	1	$1,500	**$1,500**	E	
155	4	**3103**	5/11/1999	8-18-301	1	2	2	$1,000	**$2,000**	E	Leaking VOC
156	4	**3101**	5/11/1999	8-18-301	1	2	2	$2,109	**$4,281**	E	Leaking VOC > 750 ppm
157	4	**3105**	5/18/1999	REG 10	1	1	1	$1,000	**$1,750**	E	Leaking VOC
			5/18/1999	REG 10	1	1	1	$750		E	
158	4	**3104**	5/18/1999	8-18-301	1	2	2	$750	**$3,000**	E	Leaking > 10000ppm and drop 11 drops/min
			5/18/1999	8-18-307	1	2	2	$750		E	
159	4	**3102**	5/18/1999	8-18-301	1	2	2	$1,909	**$3,818**	E	Leaking VOC
160	4	**3106**	5/25/1999	8-18-301	1	2	2	$500	**$1,000**	E	Leaking VOC
161	4	**3110**	6/5/1999	9-9-301.3	1	1	1	$1,500	**$3,000**	E	
			6/5/1999	1-522.7	1	1	1	$1,500		A	Failed Sources Test for NOx at CEM

* Unable to determine

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BAY AREA AIR QUALITY MANAGEMENT DISTRICT: RULES AND FINES FOR NOVs SETTLED

No	REFINERY	NOV	DATE	RULE	Days of Violation	# of Violations	Violation days	Fine ($/day/ violation)	**Total Fine**	E/A	Comment
162	4	**3117**	7/8/1999	8-44-501.5	1	1	1	$1,250	**$2,500**	A	Failure to maintain record at Marine
			7/8/1999	8-44-501.7	1	1	1	$1,250		E	
163	4	**29242**	7/16/1999	1-0-301	1	1	1	$1,000	**$1,000**	E	Leaking VOC
164	4	**3114**	8/6/1999	2-1-307	3	1	3	$1,771	**$5,312**	A	Failure to collect daily test gas sample
165	4	**3113**	8/17/1999	8-5-320.2.2	1	1	1	$3,000	**$3,000**	E	missing hatch cover
166	4	**3115**	20/1/99	8-18-301	1	1	1	$1,500	**$1,500**	E	Leaking VOC
167	4	**3714**	12/16/1999	6-301	1	1	1	$500	**$500**	E	Odors, high VOC
168	4	**3715**	1/11/2000	6-301	1	1	1	$3,000	**$3,000**	E	Breakdown at all units due to power failure
169	4	**3621**	1/20/2000	320	1	1	1	$2,000	**$2,000**	E	Leaking VOC
170	4	**3622**	1/24/2000	6-307	1	1	1	$2,000	**$2,000**	E	Esceed limit of flow at WWS
171	4	**29319**	3/5/1997	8-18-303	1	4	4	$800	**$3,200**	E	
172	4	**31435**	11/26/1997	8-18-307	1	1	1	$239	**$480**	E	
			11/26/1997	1-522.7	1	1	1	$241		A	
173	4	**3097**	3/3/1999	8-18-304	1	4	4	$750	**$3,000**	E	
174	4	**3579**	5/12/1999	8-18-304	1	1	1	$750	**$750**	E	
175	4	**3580**	5/12/1999	8-18-304	1	7	7	$750	**$5,250**	E	
176	4	**3581**	5/12/1999	8-18-301	1	7	7	$750	**$6,100**	E	
			5/12/1999	8-18-304	1	1	1	$750		E	
177	4	**3582**	5/12/1999	8-18-304	1	16	16	$750	**$12,000**	E	
178	4	**3583**	5/18/1999	8-18-301	1	12	12	$750	**$9,000**	E	
179	4	**3584**	5/18/1999	8-18-304	1	1	1	$750	**$750**	E	
180	4	**3585**	5/18/1999	8-18-304	1	1	1	$750	**$750**	E	
181	4	**3586**	5/18/1999	8-18-304	1	4	4	$750	**$3,000**	E	
182	4	**3587**	5/18/1999	8-18-304	1	2	2	$750	**$1,500**	E	
183	4	**3588**	5/18/1999	8-18-304	1	9	9	$750	**$6,750**	E	
184	4	**3589**	5/18/1999	8-18-304	1	2	2	$750	**$1,500**	E	
185	4	**3590**	5/18/1999	8-18-304	1	3	3	$750	**$2,250**	E	
186	4	**3591**	5/20/1999	8-18-304	1	3	3	$750	**$2,250**	E	
187	4	**3592**	5/20/1999	8-18-304	1	1	1	$750	**$750**	E	
188	4	**3593**	5/20/1999	8-18-304	1	4	4	$750	**$3,000**	E	

* Unable to determine

APPENDIX A.2

BAY AREA AIR QUALITY MANAGEMENT DISTRICT: RULES AND FINES FOR NOVs SETTLED

No	REFINERY	NOV	DATE	RULE	Days of Violation	# of Violations	Violation days	Fine ($/day/ violation)	**Total Fine**	E/A	Comment
189	4	**3594**	5/20/1999	8-18-304	1	1	1	$750	**$750**	E	
190	4	**3729**	5/27/1999	2-1-307	1	1	1	$116	**$116**	E	
191	4	**3730**	5/30/1999	2-1-307	1	1	1	$116	**$116**	E	
192	4	**3727**	6/9/1999	8-18-301	1	4	4	$750	**$3,000**	E	
193	4	**3740**	10/22/1999	8-18-311.3	1	1	1	$518	**$518**	E	
194	4	**3744**	10/29/1999	2-1-307	1	1	1	$116	**$116**	E	
195	4	**3745**	11/5/1999	2-1-307	1	1	1	$116	**$116**	E	
196	4	**3749**	3/1/2000	8-18-311.3	1	1	1	$518	**$518**	E	
197	4	**3098**	1/28/1999	2-1-307	1	1	1	$116	**$116**	E	
	Total	**197**			**318**	**382**	**495**		**$405,123**		

* Unable to determine

APPENDIX A.3

SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT: RULES AND FINES FOR NOVs SETTLED

No	REFINERY	NOV	DATE	RULE	Days of Violation	# of Violations	Violation days	Fine ($/day/ violation)	**Total Fine**	E/A	Comment
1	5	**9859**	1/16/97	4102	1	1	1	1000	**$1,000**	E	Moisture leaking [2]
2	5	**961**	1/21/97	2070	809	1	UD*	UD*	**UD***	E	Flare burning [1]
3	5	**S97-376**	UD*	4102	1	1	1	5000	**$5,000**	E	Moisture leaking [2]
4	5	**S97-377**	UD*	4102	1	1	1	5000	**$5,000**	E	Moisture leaking [2]
5	5	**10405**	3/7/97	4623	1	3	3	2550	**$7,650**	E	Storage tank roof
6	5	**2944**	4/14/97	2070	1	1	1	3785	**$3,785**	E	NOx (heater)
7	5	**10406**	6/4/97	4624	1	1	1	750	**$750**	E	HC (Vapor return hose)
8	5	**10241**	7/21/97	4623	1	1	1	500	**$500**	E	Leaking PVR
9	5	**10408**	8/4/97	4623	1	1	1	650	**$650**	E	VOC (storage tanks)
10	5	**4486**	9/6/97	2070	1	1	1	5000	**$5,000**	E	Coke dust (Coker)
11	5	**16772**	3/18/00	2070 Sec 7	1	1	1	4200	**$4,200**	A	Notification not within 1 hr.
12	5	**457**	4/2/98	2070	UD*	UD*	UD*	UD*	**UD***	E	Flare burning [1]
13	5	**4656**	4/2/98	4623	UD*	UD*	UD*	UD*	**UD***	UD*	Flare burning [1]
14	5	**9610**	4/2/98	2070	UD*	UD*	UD*	UD*	**UD***	UD*	Flare burning [1]
15	5	**9612**	4/2/98	4001	UD*	UD*	UD*	UD*	**UD***	E	Flare burning [1]
16	5	**9615**	4/2/98	4001	UD*	UD*	UD*	UD*	**UD***	E	Flare burning [1]
17	5	**9616**	4/2/98	4001	UD*	UD*	UD*	UD*	**UD***	E	Flare burning [1]
18	5	**9618**	4/2/98	4001	UD*	UD*	UD*	UD*	**UD***	E	Flare burning [1]
19	5	**9619**	4/2/98	4001	UD*	UD*	UD*	UD*	**UD***	E	Flare burning [1]
20	5	**10092**	4/2/98	4001	UD*	UD*	UD*	UD*	**UD***	E	Flare burning [1]
21	5	**10411**	4/2/98	2010	UD*	UD*	UD*	UD*	**UD***	UD*	Flare burning [1]
22	5	**10413**	4/2/98	4623	UD*	UD*	UD*	UD*	**UD***	E	Flare burning [1]
23	5	**10415**	4/2/98	2070	UD*	UD*	UD*	UD*	**UD***	UD*	Flare burning [1]
24	5	**10416**	4/2/98	4623	UD*	UD*	UD*	UD*	**UD***	E	Flare burning [1]
25	5	**9816**	4/27/98	4623 - 5.3.2	19	1	19	UD*	**$19,000**	E	Leaking storage tanks
				4623 - 5.3.3	19	1	19	UD*		E	
26	5	**4999**	4/25/00	4305 - 5.0	1	1	1	4500	**$4,500**	A	Heater out of compliance
27	5	**16804**	6/24/00	1080 - 99	1	1	1	UD*	**$3,315**	E	Heater non-compliance (NOx)
				2070 - 7	1	1	1	UD*		E	

* Unable to determine

APPENDIX A.3

SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT: RULES AND FINES FOR NOVs SETTLED

No	REFINERY	NOV	DATE	RULE	Days of Violation	# of Violations	Violation days	Fine ($/day/ violation)	**Total Fine**	E/A	Comment
28	5	**16773**	7/4/00	1100 - 7	1	1	1	1080	**$1,080**	A	Report not submitted 10 days
29	5	**4830**	7/7/00	2070 - 7	1	1	1	2250	**$2,250**	E	NOx excess
30	5	**16827**	7/21/00	2070 - 7	6	1	6	3125	**$18,750**	E	Fuel gas excess H2S
31	5	**16510**	7/22/00	4101 - 5.1	1	1	1	4500	**$4,500**	E	Opacity exceedance (flare)
32	5	**16815**	1/27/01	2070 - 7	1	1	1	1500	**$1,500**	E	Fuel gas excess H2S
33	5	**18189**	2/9/01	2070 - 7	1	2	2	3750	**$7,500**	A	Notification not within 1 hr.
	Total	**31**			**871**				**$95,930**		

[1] Undetermined amount of $500,000 in civil penalties for 14 NOVs
(4576, 9610, 9611, 9612, 9615, 9616, 9618, 9619, 10092, 10411, 10413, 10415, and 10416)

[2] These NOV settlements included an SEP component of $203,000 for the purchase of real property around the refinery
(9859, S97-376, S97-377)

* Unable to determine

APPENDIX B

EVALUATION OF REFINERY UPSET/BREAKDOWNS, CITIZEN COMPLAINTS AND NOTICES OF VIOLATION AT SELECTED CALIFORNIA REFINERIES

Appendix B provides additional information on staff's evaluation of upset/breakdowns, complaints, and Notices of Violation (NOVs) issued at selected refineries in the South Coast Air Quality Management District and the Bay Area Air Quality Management District.

A. Introduction

In evaluating the enforcement activities of local air quality management districts (districts) at refineries, Air Resources Board (ARB) staff also collected information on refinery operating activities. In particular, staff was interested in determining if requirements to produce reformulated fuels have had any impact on the ability of refineries to comply with district-adopted rules and regulations. Specifically, staff was interested in the impacts of the California Phase 2 reformulated gasoline (CaRFG2) regulations. These regulations, implemented in the spring of 1996, required refineries in the state to produce gasoline that meets eight key specifications, and when used, significantly reduces smog-forming emissions from gasoline-powered motor vehicles. To produce gasoline that meets these eight specifications, refineries in the state installed new equipment, and performed significant modification and modernization to various existing process units. These additions, modifications and modernizations made the California refineries more complex than they already were.

B. Methodology

To perform this evaluation, ARB staff worked with the enforcement staffs of the South Coast (SCAQMD) and Bay Area Air Quality Management Districts (BAAQMD) to collect information on four refineries in the state. Two of these refineries were located within the SCAQMD and two were located within the BAAQMD. The refineries selected represent both large and small facilities with different levels of modernization. Additional refineries were not selected for evaluation due to limited ARB staff resources. However, it is staff's expectation that analysis of additional refineries would provide little additional insight and would not significantly change the results of the staff's evaluation.

Since staff was interested in the observing any changes in the ability of California refineries to comply with district air quality rules and regulations as a result of the CaRFG2 regulations, staff evaluated historical information on upset/breakdowns, complaints, and NOVs issued at these refineries. Staff's goal was to determine if over time, the frequency of incidents at refineries has changed as a result of the modifications necessary to comply with the CaRFG2 regulations.

Since the focus of staff's evaluation was to determine if the CaRFG2 regulations had any impact on the frequency of incidents at refineries, staff evaluated upset/breakdown

data retained by the SCAQMD and the BAAQMD for these four refineries. To perform staff's evaluation, the period of time from about mid-1989 to mid-2000 was selected for analysis. This provided about five years of data both before and after the introduction of CaRFG2. The pre-CaRFG2 years of 1989 to 1993 provide a baseline for establishing historical upset/breakdown frequency at these refineries prior to the CaRFG2 modifications. The years 1994 through 1997 represent the period of time major modifications at the refineries were occurring, and the equipment was undergoing start-up and optimization during CaRFG2 implementation in 1996. Finally, the period 1998 through 2000 represents a stable period of time at the refineries where major modifications were not occurring, and refiners had additional time to fine tune and optimize their refining operations.

Another important aspect of refinery operations was to evaluate the frequency of complaints by local citizens to the districts regarding refinery operations. To quantify this impact, staff also collected information on the number of complaints received by the districts for these four refineries over approximately the same period. Finally, staff were interested in the compliance records of these refineries, so NOV information was collected for these facilities over approximately the same period.

Due to constraints on time and resources, a refinery in the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) was not included in this analysis. However, in the near future, staff intend to perform a similar analysis for a refinery in the SJVUAPCD, and will report the findings from that analysis when they are complete.

C. Data Collection

In performing staff's evaluation, available data was collected from a number of sources within the district. Information regarding upset/breakdowns was collected from district staff within the enforcement programs, and included upset/breakdown reports filed by the individual refiners, inspector investigations, interviews with district inspectors, and annual compliance reports prepared by the district.

Information on the number of citizen complaints received, and the disposition of those complaints, was obtained from the districts' complaint logs, as well as annual compliance reports prepared by the districts. Finally, ARB staff worked with the staffs of both the enforcement and legal divisions within the districts to collect information on the numbers and types of NOVs issued.

ARB staff worked very closely with district staff to collect all of this information. District staff also helped compile and evaluate the information collected, and provided critical review of the findings. District staff were also very helpful in providing follow up

information and answering any questions ARB staff had. ARB staff sincerely appreciate the resources and efforts provided by the districts in this evaluation.

In addition to reviewing the data and findings with the districts, ARB staff also shared their findings with the four refineries selected for this evaluation. These refineries were helpful in providing insight into particular trends that were evident in the data, and in a number of cases, provided staff with additional information to supplement the data provided by the districts.

To provide another measure of the performance of refinery operations, ARB staff compared California refineries to refineries in the rest of the nation in terms of worker safety. Staff collected data from the United States Occupational Health and Safety Administration regarding worker illness and injury for petroleum refineries in California and in the other 49 states. It was felt that this would serve as another indicator of problems occurring in refineries and are California refineries experiencing a higher rate of worker injuries than other refineries in the rest of the country.

D. Limitations

Very early in the data collection process, staff recognized that inherent differences between districts created challenges in comparing the data between districts. For instance, while both the SCAQMD's and the BAAQMD's enforcement programs have many similar components, differences in the individual practices of the districts in implementing their enforcement programs, and internal changes in enforcement programs themselves over time, result in difficulties in making a direct comparisons of the data between districts. Also, while the two districts' rules and regulations applicable to refineries are often comparable, there are often sufficient differences in the stringency of similar rules between the districts to limit staff's ability to perform a direct comparison of compliance records between districts.

Because of these limitations, staff have not attempted to directly compare the enforcement programs of the two districts, nor have staff attempted to compare the compliance performance of refineries in different districts. ARB staff have limited their analysis to only a comparison of compliance trends within a particular district for each of the refineries selected.

E. Results

This section discusses the results of staff's data analysis of upset/breakdowns, complaints, and NOVs issued for the four refineries evaluated. It also includes the

results of staff's evaluation of refinery worker injury and illness rates for California refineries compared to refineries in other parts of the country.

1. Upset/Breakdown Data

As stated previously, staff evaluated upset/breakdown data retained by the SCAQMD and the BAAQMD for four refineries over the period of time from about mid-1989 to mid-2000. This provided about five years of data both before and after the introduction of CaRFG2. The pre-CaRFG2 years of 1989 to 1993 provide a baseline for establishing historical upset/breakdown frequency at these refineries prior to the CaRFG2 modifications. The years 1994 through 1997 represent the period of time major modifications at the refineries were occurring, and when the new or modified equipment was undergoing start-up and optimization. Finally, the period 1998 through 2000 represents a stable period of time at the refineries where major modifications were not occurring, and refiners had sufficient time to fine tune and optimize their refining operations

The data is segregated by district, and presented by the number of upset/breakdowns per year. Each district is represented by two graphs: the first graph shows all reported upset/breakdowns for the two refineries selected, and the second graph shows upset/breakdowns of major refining units for the same two refineries. For this evaluation, major refinery process units are considered to be refinery process units that are critical to the production of finished refinery products, such as crude distillation units, fluid catalytic crackers, alkylation plants, etc. Ancillary equipment such as storage tanks, boilers, cogeneration units and monitoring equipment were not considered major refinery process units and are not included in the second graphs.

SCAQMD. The results of staff's analysis of the upset/breakdowns reported in the SCAQMD for the two refineries selected are shown in Figures B-1 and B-2. Figure B1 includes all reported upset/breakdowns that were reported from 1989 to 2000. Figure B2 includes only those upset/breakdowns for major refinery process units. The years 1989 and 2000 are likely only partially complete due to the unavailability of records from early 1989, and the fact that all of the 2000 records had not been completely compiled by the district when staff began their data collection.

As can be seen from Figure B-1, the total number of upset/breakdowns for all equipment at the two refineries evaluated in the SCAQMD is highly variable, with distinct peaks occurring in 1991, and again in 1997-1998. However, the data from 1999 and 2000 suggests that the current level of upset/breakdowns has returned to a level that is representative of minimum levels seen over the entire period evaluated.

Figure B-1:
Total Reported Breakdowns for All Units in
The South Coast Air Quality Management District
(1989 – 2000)

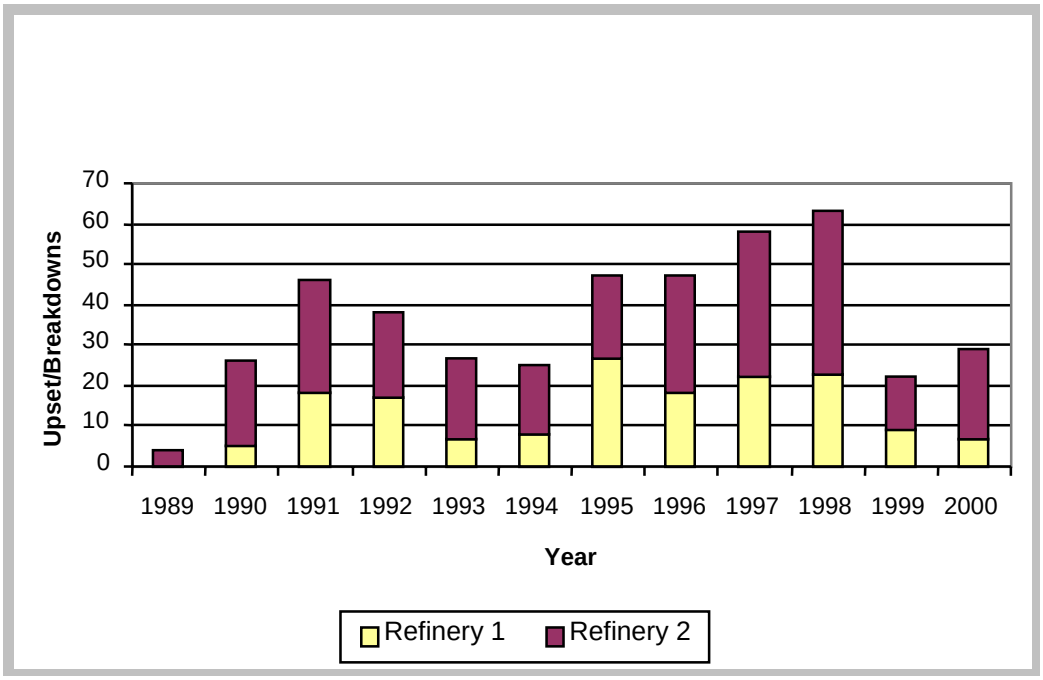
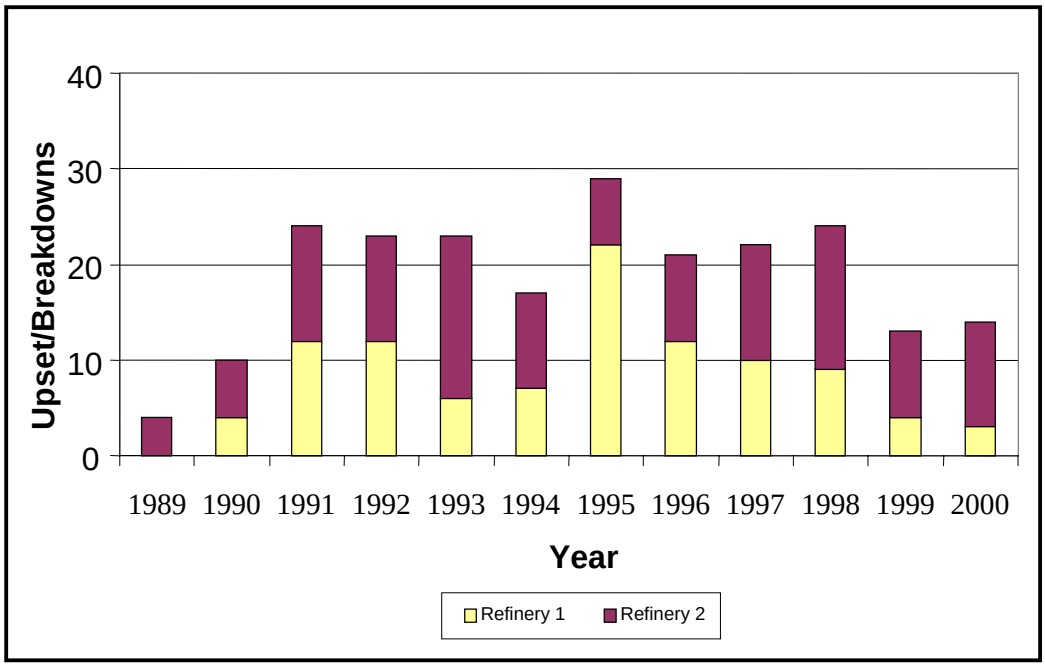


Figure B-2 shows similar data for the major process units at these same two refineries. It is interesting to note that for the major process units, the data shows significantly less variability from year to year, and that during most years, there are significantly more upset/breakdown conditions associated with the ancillary refinery equipment than with the major process units. With the exception of a small spike evident in 1995, the data shows a very consistent pattern of upset/breakdowns during the CaRFG2 modification and implementation period, and appears to have returned to a level that is lower than that observed in the early 1990's.

Figure B-2:
Total Reported Breakdowns for Major Process Units in The South Coast Air Quality Management District (1989 – 2000)



By comparing Figures B-1 and B-2, it is evident that the equipment that is more likely to experience upset/breakdown conditions is usually not a major refinery process unit. Because of this fact, staff believes that as refineries have modernized, older refinery process equipment has been replaced with newer, more reliable units. Based on the data presented in Figures B-1 and B-2, these units appear to be less likely to experience upset/breakdown conditions than the ancillary refinery equipment.

BAAQMD. The results of staff's analysis of the upset/breakdowns reported in the BAAQMD for the two refineries selected are shown in Figures B-3 and B-4. Figure B-3 includes all reported upset/breakdowns that were reported from 1989 to 2000. Figure B-4 includes only those upset/breakdowns of major refinery process units. The years 1989 and 2000 are likely only partially complete due to the unavailability of records from early 1989, and all the fact that all of the 2000 records had not been completely compiled by the district when staff began their data collection.

As can be seen from Figure B-3, unlike in the SCAQMD, the total number of upset/breakdowns for all equipment at the two refineries evaluated is fairly consistent

with the exception of the years 1994 through 1996. This higher than usual level of upset/breakdowns may be due to the installation and startup of new equipment associated with the production of CaRFG2. However, the data shows that for the years 1997 and 1998, the frequency of upset/breakdowns returned to a level consistent with the pre-CaRFG2 period, and has subsequently been further reduced to a level that is even lower than that observed during the pre-CaRFG2 period.

Figure B-3:
Total Reported Breakdowns for All Units in
The Bay Area Air Quality Management District
(1989 – 2000)

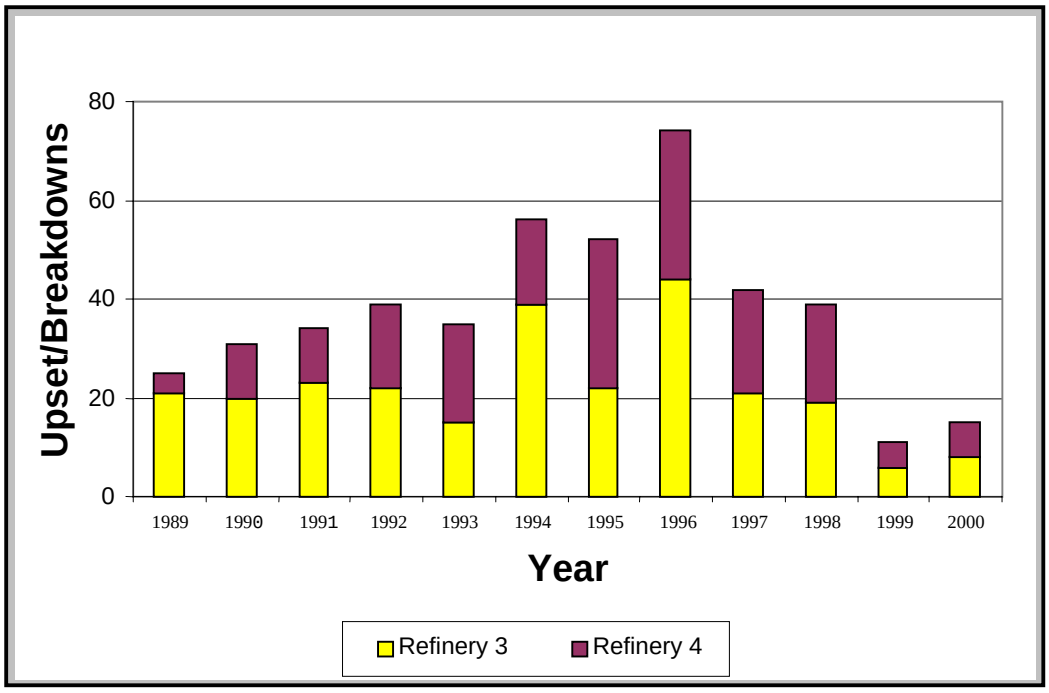
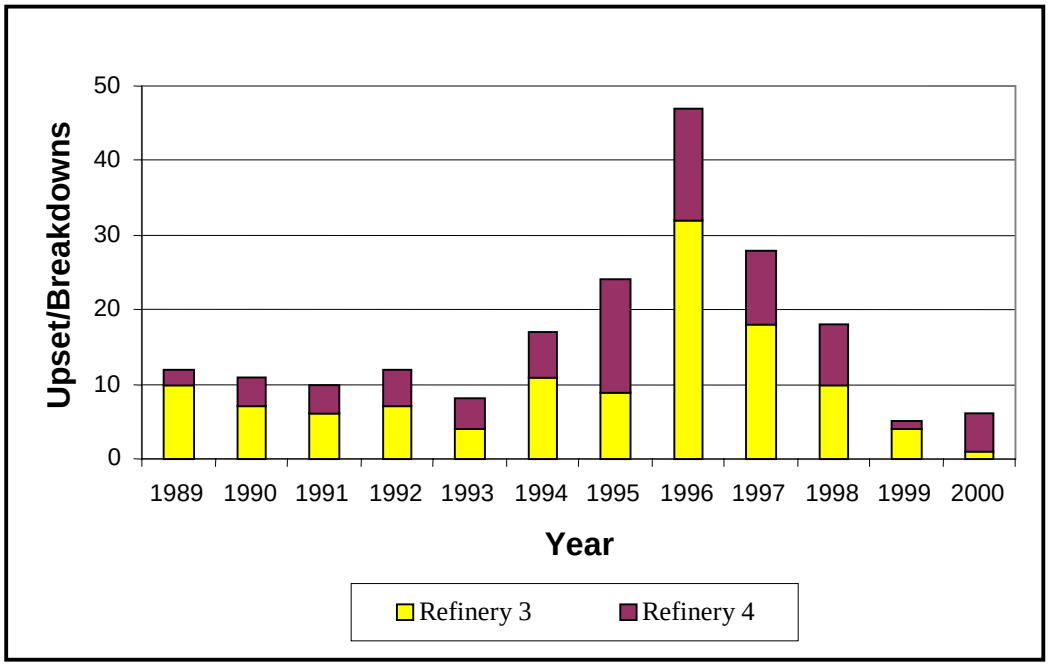


Figure B-4 shows similar data for the major process units at these same two refineries. Similar to the results seen in Figure B-3, the frequency of upset/breakdowns for major refinery process units is fairly consistent over the period evaluated. The exception to this is from the years 1995 through 1997. However, it is likely that, as observed in Figure B-3, this higher than usual level of upset/breakdowns may be due to the installation and startup of new equipment associated with the production of CaRFG2, and that when the refineries optimized the operation of these units, these upset/breakdown conditions were minimized. This conclusion is supported by the fact

that the frequency of upset/breakdowns in 1999 and 2000 was less than that observed for any other period evaluated.

Figure B-4:
Total Reported Breakdowns for Major Process Units in The Bay Area Air Quality Management District (1989 – 2000)



By comparing Figures B-3 and B-4, it is evident that in the BAAQMD, the trends in the frequency of upset/breakdowns are consistent for both major refinery process units and ancillary equipment. However, as seen in the SCAQMD, the equipment that is more likely to experience upset/breakdown conditions is usually not a major refinery process unit. Staff believes that this is predominantly due to the fact that as refineries have modernized, older refinery process equipment has been replaced with newer, more reliable units.

2. Complaints

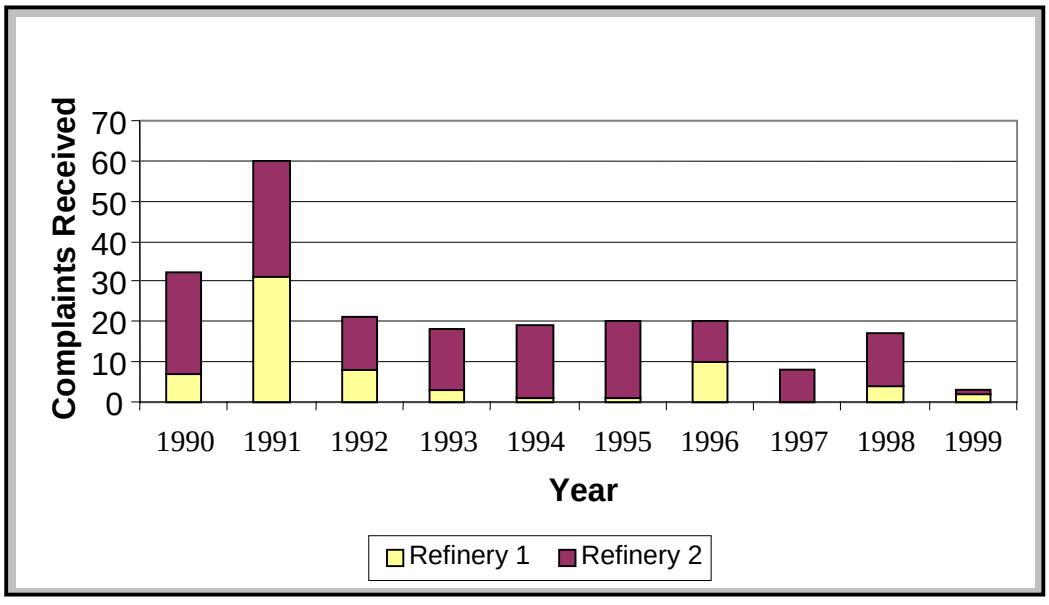
As stated previously, staff collected information on the number of citizen complaints received from about mid-1989 to mid-2000 for the four refineries evaluated. This provided about five years of data both before and after the introduction of CaRFG2 into

the state. In general, the complaints received from citizens identifying the refineries evaluated usually were associated with unusual odors or visible emissions.

The data is segregated by district, and presented by the number of citizen complaints received per year. For the BAAQMD, staff had access to additional data, which identified the disposition of each complaint. Either the complaint was unverifiable as to the source or verified to have originated at the suspected refinery. Also, staff was able to determine whether a NOV was issued to the refinery as a result of the complaint.

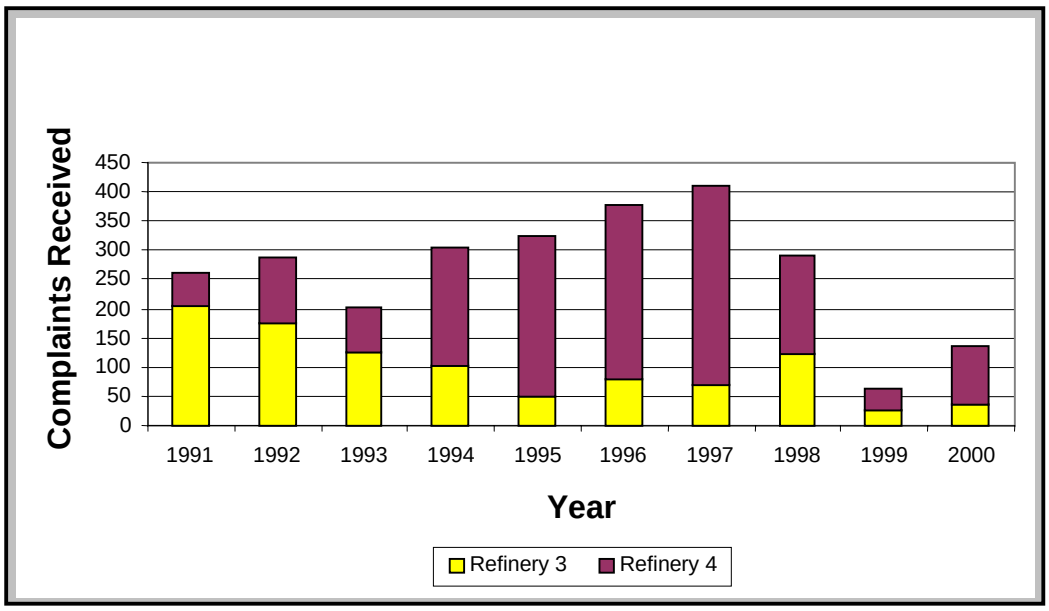
SCAQMD. As can be seen from Figure B-5, with the exception of 1991, the number of complaints received by the SCAQMD regarding the two refineries selected for staff's evaluation has been fairly consistent with time. In general, less than 20 complaints per year have been received since 1992, and since 1997, the number of complaints has been further reduced. Since most complaints are associated with odors and visible emissions (excessive flaring, excessive steam releases, etc), this trend is correlated with the implementation of new refinery rules in the SCAQMD. These rules have been effective in reducing the frequency of flaring and other visible emission events (such as excess particulate emissions from petroleum coke handling), and have imposed new standards on refinery equipment that tends to release odorous compounds (such as wastewater separators, sulfur recovery plants, etc.).

Figure B-5:
Total Reported Complaints in
The South Coast Air Quality Management District
(1990-1999)



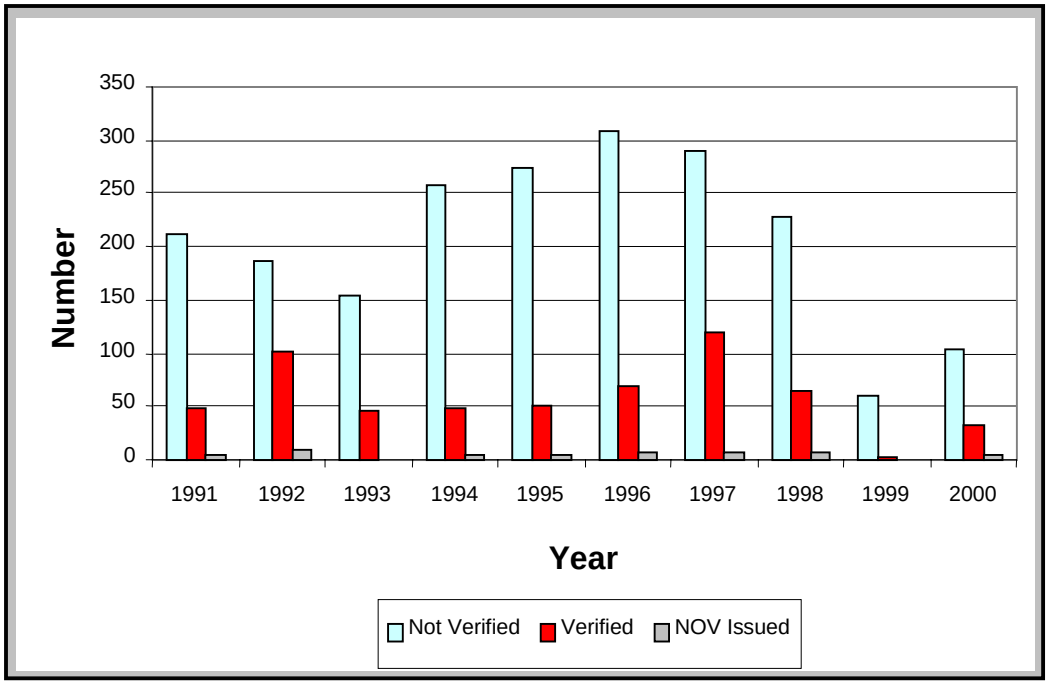
BAAQMD. As can be seen from Figure B-6, significantly more complaints are received within the BAAQMD than the SCAQMD. Although, the range in the number of complaints is highly variable, with slightly more than 50 complaints received in 1999, and over 400 received in 1997. However, when evaluating this particular set of data, it is important to note the disposition of these complaints, as shown in Figure B-7. Based upon investigation by BAAQMD inspectors, each complaint received was either verified or not verified as having originated from the suspected refinery. As can be seen from Figure B-7, the vast majority of complaints received by the district are not verified as originating from either refinery. In fact, in most cases, over 75 percent of the complaints received these refineries were not verifiable.

Figure B-6:
Total Reported Complaints in
The Bay Area Air Quality Management District
(1991-2000)



As shown in Figure B-7, the number of verified complaints has been fairly consistent over the period evaluated, with slight increases being observed in 1991 and 1997. Also, it is important to note that even for most verified complaints, the cause of the complaint was not a violation of any district regulations, and no NOVs were issued. In addition, both the total number of complaints and the number of verified complaints received since 1998 have declined dramatically below historic levels.

Figure B-7:
Disposition of Reported Complaints in
The Bay Area Air Quality Management District
(1991-2000)



When staff compared the verified complaints in the BAAQMD with the complaints received in the SCAQMD over the same period, similar trends in the number of complaints were apparent. Staff believes that for both districts, as new refinery rules and regulations have been implemented, the frequency of flaring and excessive emissions from other visible emission events (such as petroleum coke handling) has been reduced, as has release of odorous compounds (such as mercaptans and hydrogen sulfide).

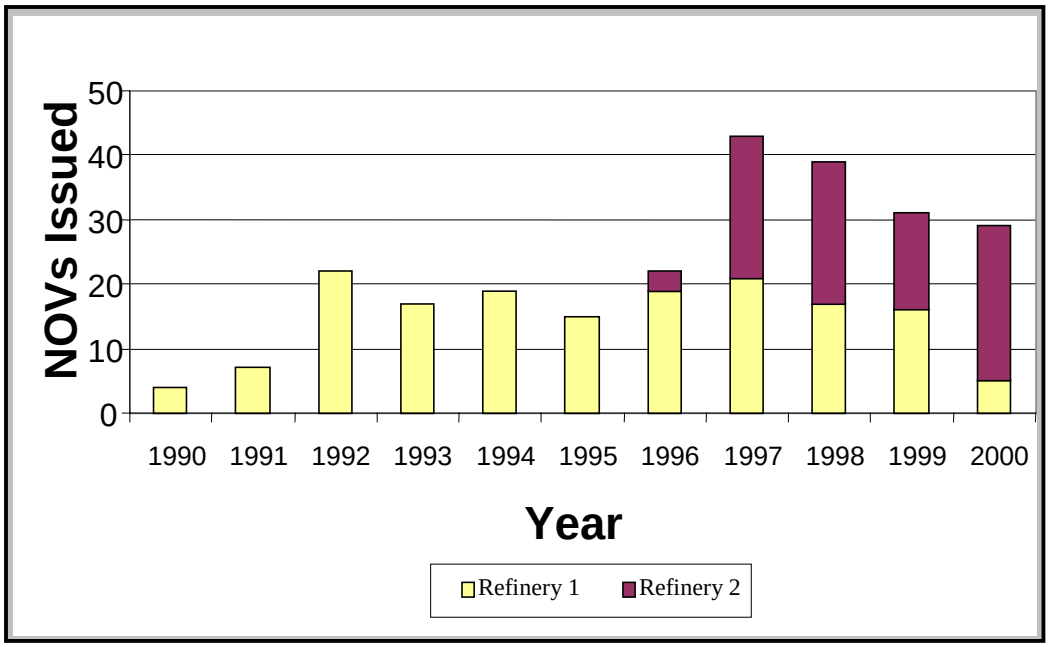
3. NOVs

As stated previously, staff collected information on the number of NOVs issued by district refinery inspectors to the four refineries evaluated. NOV data provides insight into the level of enforcement activities at refineries, and indicates the level of compliance achieved at these facilities.

The data in the SCAQMD covered the period of 1990 through 2000 for one refinery, and 1997 to 2000 for the other (data was incomplete for this refinery prior to 1997). The BAAQMD data collected only covered the period 1994 through 2000 because data prior to 1994 was not readily accessible to ARB staff (the district changed their file storage protocol in 1994). The 1989 data from the SCAQMD and the 1994 data from the BAAQMD are likely only partially complete due to the unavailability records from these years, and the 2000 records had not been completely compiled by the district when staff began their data collection. The data is segregated by district, and presented by the number of NOVs issued per year.

SCAQMD. The results of staff's analysis of the NOVs issued by the SCAQMD enforcement staff to the two refineries selected is shown in Figure B-8. As can be seen in Figure B-8, for Refinery 1, the number of NOVs issued has been fairly consistent since 1992, averaging less than 20 per year. Since 1997, the number issued has steadily declined. For Refiner 2, while historical data was generally not available prior to 1997, this facility has also seen a decline in the number of NOVs issued. These declines in the number of NOVs issued has occurred during a time when the SCAQMD has increased its level of enforcement at refineries significantly since the mid-1990's, with district inspectors now visiting each refinery nearly three times a week. This is indicative of an increasing rate of compliance of these facilities with district rules.

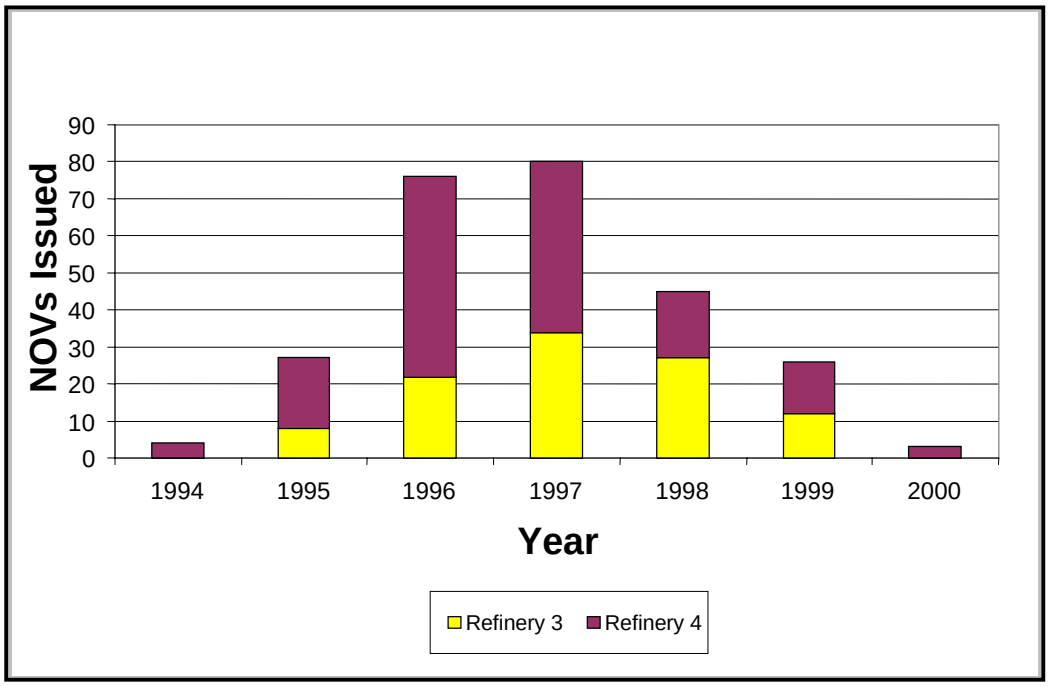
Figure B-8:
Notices of Violation Issued in
The South Coast Air Quality Management District
(1990-2000)



BAAQMD. The results of staff's analysis of the NOVs issued by the BAAQMD enforcement staff to the two refineries selected are shown in Figure B-9. As can be seen in Figure B-9, there is a sharp increase in the number of NOVs issued to the two refineries evaluated in 1996 and 1997. This increase is likely due to more rigorous and frequent inspections by the BAAQMD enforcement staff during this period, when enforcement staff began visiting each refinery at least once per week.

However, similar to the trend observed in the SCAQMD, the number of NOVs issued to these facilities has steadily declined since 1997, while the enforcement practices of the district have not decreased. The decline in the number of NOVs issued, occurring during a time of aggressive enforcement by the district, is indicative of an increasing rate of compliance of these facilities with district regulations.

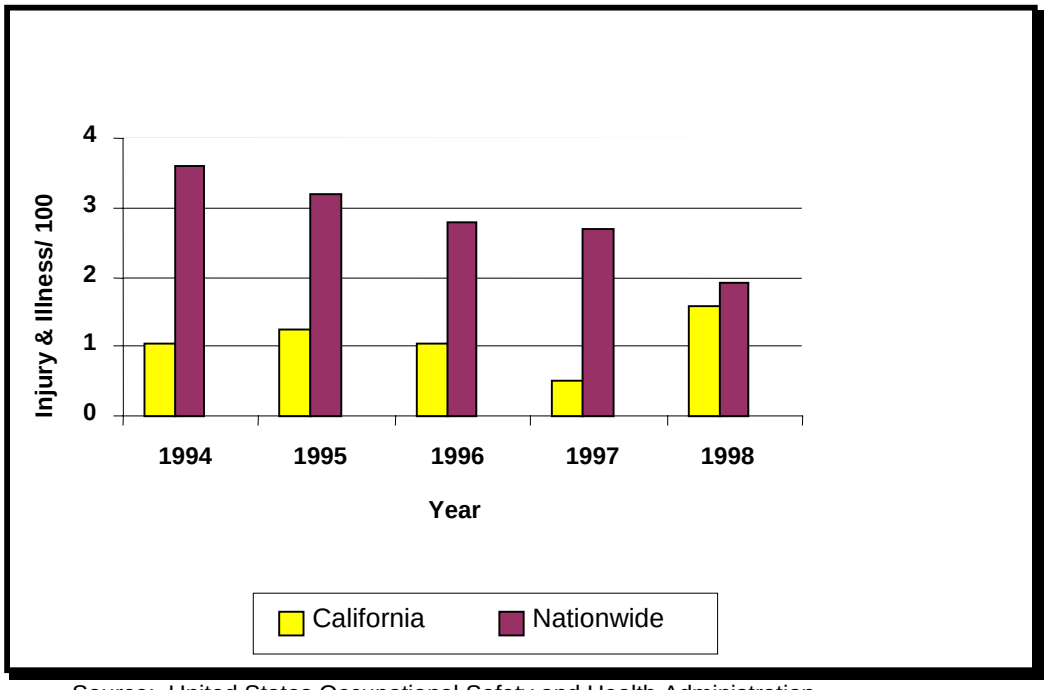
Figure B-9:
Notices of Violation Issued in
The Bay Area Air Quality Management District
(1994-2000)



4. OSHA Reported Injuries and Illness

Staff also evaluated data collected from the United States Occupational Health and Safety Administration regarding worker illness and injury at petroleum refineries. This data was collected for California refineries, as well as for refineries nationally. As shown in Figure B-10, this data clearly shows that while illness and injuries among refinery workers has declined nationally over the last decade, California refineries consistently have a lower rate of worker injuries than refineries nationwide. This consistently lower rate of worker illness and injury in California refineries has occurred during a period when refineries in California have undergone significant modification and modernization to produce clean fuels. In turn, this modernization has necessarily increased the complexity of these refineries. Yet, consistent with staff's findings earlier in this section, this modernization not adversely impacted the frequency of breakdowns at California refineries, and it has also not increased the rate at which refinery workers are injured.

Figure B-10:
Comparison of Refinery Illness and Injuries
California vs. National
(1994-1998)



Source: United States Occupational Safety and Health Administration

APPENDIX C

LIST OF BAAQMD, SCAQMD, AND SJVUAPCD RULES AND REGULATIONS APPLICABLE AT PETROLEUM REFINERIES

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

REGULATION I - GENERAL PROVISIONS AND DEFINITIONS

Rule 1-100 General
All subparts, including:
1-112 Breakdown
1-113 Discretionary Enforcement, Breakdown
Rule 1-300 Standards
1-301 Public Nuisance
Rule 1-400 Administrative Requirements
All subparts, including:
1-430 Breakdown Procedures
1-431 Breakdown Report
1-432 Written Breakdown Report
1-433 Determination Of Breakdown
1-434 Administrative Violation, Breakdown
1-440 Right Of Access To Premises
1-441 Right Of Access To Information
Rule 1-500 Monitoring and Records

REGULATION II - PERMITS

Rule 2-1 General Requirements
Rule 2-2 New Source Review
Rule 2-3 Power Plants
Rule 2-4 Emissions Banking
Rule 2-6 Major Facility Review

REGULATION III - FEES

Reg 3 District Permit Fees and Hearing Board Fees

REGULATION V - OPEN BURNING

REGULATION VI - PARTICULATE MATTER AND VISIBLE EMISSIONS

REGULATION VII - ODOROUS SUBTANCES

APPENDIX C

LIST OF BAAQMD, SCAQMD, AND SJVUAPCD RULES AND REGULATIONS APPLICABLE AT PETROLEUM REFINERIES

REGULATION VIII - ORGANIC COMPOUNDS

Rule 8-1	*General Provisions*
Rule 8-2	*Miscellaneous Operation*
Rule 8-3	*Architectural Coatings*
Rule 8-5	*Storage of Organic Liquids*
Rule 8-6	*Terminals and Bulk Plants*
Rule 8-8	*Wastewater (Oil-Water) Separators*
Rule 8-9	*Vacuum Producing Systems*
Rule 8-10	*Process Vessel Depressurizing*
Rule 8-18	*Valves and Connectors at Petroleum Refinery Complexes, Chemical Plants, Bulk Plants and Bulk Terminals*
Rule 8-28	*Pressure Relief Valves at Petroleum Refineries and Chemical Plants*
Rule 8-33	*Gasoline Bulk Terminals and Gasoline Delivery Vehicles*
Rule 8-37	*Natural Gas and Crude Oil Production Facilities*
Rule 8-39	*Gasoline Bulk Plants & Gas Delivery Vehicles*
Rule 8-44	*Marine Vessel Loading Terminals*
Rule 8-46	*Marine Tank Vessel to Marine Tank Vessel Loading*
Rule 8-51	*Adhesive and Sealant Products*

REGULATION IX - INORGANIC GASEOUS POLLUTANTS

Rule 9-1	*Inorganic Gaseous Pollutants - Sulfur Dioxide*
Rule 9-2	*Hydrogen Sulfide*
Rule 9-3	*Nitrogen Oxides from Heat Transfer Operations*
Rule 9-8	*Nitrogen Oxides Carbon Monoxide from Stationary Internal Combustion Engines*
Rule 9-9	*NO_x from Stationary Gas Turbines*
Rule 9-10	*NO_x/CO from Boilers/Generators-Refineries*

REGULATION X - STANDARDS OF PERFORMENCE FOR NEW STATIONARY SOURCES

REGULATION XI - HARZADOUS POLLUTANTS

Rule 11-7	*Benzene*
Rule 11-11	*NESHAPs for Benzene Emissions from Coke*

REGULATION XII - MISCELLANEOUS STANDARDS OF PERFORMANCE

Rule 12-10	*Miscellaneous Standards of Performance Oleum Transfer Operations*

REGULATION XIII - TRANSPORTATION CONTROL MEASURES

Rule 13-1 Trip Reduction Requirements for Large Employers

APPENDIX C

LIST OF BAAQMD, SCAQMD, AND SJVUAPCD RULES AND REGULATIONS APPLICABLE AT PETROLEUM REFINERIES

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

REGULATION I - GENERAL PROVISIONS

Rule 109 Record Keeping for Volatile Organic Compound Emissions

REGULATION II – PERMITS

REGULATION III – FEES

Rule 301 Permit Fees
Rule 307 Fees for Publication
Rule 307-1 Alternatives Fees for Air Toxic Emissions Inventory

REGULATION IV – PROHIBITIONS

Rule 401 Visible Emissions
Rule 402 Nuisance
Rule 403 Fugitive Dust
Rule 404 Particulate Matter – Concentration
Rule 405 Solid Particulate Matter - Weight
Rule 407 Liquid and Gaseous Air Contaminants
Rule 408 Circumvention
Rule 409 Combustion Contaminants
Rule 429 Start-Up and Shutdown Exemption Provisions for Oxides of Nitrogen
Rule 430 Breakdown Provisions
Rule 431-1 Sulfur Content of Gaseous Fuels
Rule 431-2 Sulfur Content of Liquid Fuels
Rule 431-3 Sulfur Content of Fossil Fuels
Rule 444 Open Fires
Rule 461 Gasoline Transfer and Dispensing
Rule 462 Organic Liquid Loading
Rule 463 Organic Liquid Storage
Rule 464 Wastewater Separators
Rule 465 Refinery Vacuum-Producing Devices or Systems
Rule 466 Pumps, Compressors, Valves, And Flanges
Rule 467 Pressure Relief Devices
Rule 468 Sulfur Recovery Units
Rule 469 Sulfuric Acid Units
Rule 474 Fuel Burning Equipment - Oxides of Nitrogen
Rule 475 Electric Power Generating Equipment
Rule 476 Steam Generating Equipment

Rule 477 *Coke Ovens*
Rule 480 *Natural Gas Fired Control Devices*

REGULATION IX - STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

REGULATION X - NATIONAL EMISSIONS STASNDARDS FOR HAZARDOUS AIR POLLUTANTS

REGULATION XI - SOURCE SPECIFIC STANDARDS

Rule 1105 *Fluid Catalytic Cracking Units – Oxides of Sulfur*
Rule 1108 *Cutback Asphalt and Emulsified Asphalt*
Rule 1109 *Emissions of NO_x from Boilers & Process Heaters*
Rule 1110-1 *Emissions from Stationary IC Engines*
Rule 1110-2 *Emissions from Gaseous- and Liquid-Fueled IC Engines*
Rule 1111 *NO_x Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces*
Rule 1113 *Architectural Coatings*
Rule 1118 *Emissions from Refinery Flares*
Rule 1119 *Petroleum Coke Calcining Operations - SO_x*
Rule 1123 *Refinery Process Turnarounds*
Rule 1134 *Emissions of Oxides of Nitrogen from Stationary Gas Turbines*
Rule 1135 *Emissions of NO_x from Electric Power Generating Systems*
Rule 1146 *Emissions of Oxides of Nitrogen from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters*
Rule 1146-1 *Emissions of Oxides of Nitrogen from Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters*
Rule 1146-2 *Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers*
Rule 1149 *Storage Tank Degassing*
Rule 1158 *Storage, Handling, and Transport of Petroleum Coke*
Rule 1168 *Adhesive and Sealant Applications*
Rule 1170 *Methanol Compatible Fuel Storage and Transfer*
Rule 1173 *Fugitive Emissions of Volatile Organic Compounds*
Rule 1176 *Sumps and Wastewater Systems*
Rule 1186 *Less-Polluting Sweepers*
Rule 1189 *Emissions from Hydrogen Plant Process Vents*

APPENDIX C

LIST OF BAAQMD, SCAQMD, AND SJVUAPCD RULES AND REGULATIONS APPLICABLE AT PETROLEUM REFINERIES

REGULATION XIII - NEW SOURCE REVIEW

REGULATION XIV - TOXICS AND OTHER NON-CRITERIA POLLUTANTS

Rule 1401	*New Source Review of Toxic Air Contaminants*
Rule 1402	*Control of Toxic Air Contaminants from Existing Sources*
Rule 1410	*Hydrogen Fluoride Storage and Use*

REGULATION XX - REGIONAL CLEAN AIR INCENTIVES MARKET (RECLAIM)

REGULTION XXX - TITLE V PERMITS

APPENDIX C

LIST OF BAAQMD, SCAQMD, AND SJVUAPCD RULES AND REGULATIONS APPLICABLE AT PETROLEUM REFINERIES

SAN JOAQUIN VALLEY AIR QUALITY MANAGEMENT DISTRICT

REGULATION I - GENERAL PROVISIONS

Rule 1080 *Stack Monitoring*
Rule 1081 *Source Sampling*
Rule 1090 *Penalty*
Rule 1100 *Equipment Breakdown*
Rule 1110 *Circumvention*

REGULATION II - PERMITS

REGULATION III - FEES

Rule 3010 *Permit Fee*
Rule 3090 *California Clean Air Act Fees*
Rule 3100 *California Environmental Quality Act Fee*
Rule 3110 *Air Toxic Fees*

REGULATION IV - PROHIBITIONS

Rule 4001 *New Source Performance Standards*
Rule 4002 *National Emissions Standards for Hazardous Air Pollutants*
Rule 4101 *Visible Emissions*
Rule 4102 *Nuisance*
Rule 4103 *Open Burning*
Rule 4201 *Particulate Matter Concentration*
Rule 4202 *Particulate Matter Emission Rate*
Rule 4301 *Fuel Burning Equipment*
Rule 4304 *Equipment Tuning Procedures for Boilers, Steam Generators, And Process Heaters*
Rule 4305 *Boilers, Steam Generators & Process Heaters*
Rule 4351 *Boilers, Steam Generators & Process Heaters -RACT*
Rule 4451 *Valves, Pressure Relief Valves, Flanges, Threaded Connectors & Process Drains at Pet Refinery & Chemical Plants*
Rule 4452 *Pump & Compressor Seals at Petroleum Refinery & Chemical Plants*
Rule 4453 *Refinery Vacuum Producing Devices or Systems*
Rule 4454 *Refinery Process Unit Turnaround*
Rule 4501 *Alternate Compliance for Best Available Retrofit Control Technology (BARCT)*

Rule 4601	*Architectural Coatings*
Rule 4621	*Gasoline Transfer into Stationary Storage Containers, Delivery Vessels and Bulk Plants*
Rule 4623	*Storage of Organic Liquids*
Rule 4624	*Organic Liquid Loading*
Rule 4625	*Wastewater Separators*
Rule 4651	*Volatile Organic Compound*
Rule 4653	*Adhesives*
Rule 4661	*Organic Solvents*
Rule 4701	*Internal Combustion Engines*
Rule 4703	*Stationary Gas Turbines*
Rule 4801	*Sulfur Compounds*
Rule 4802	*Sulfuric Acid Mist*

REGULATION VI – AIR POLLUTION EMERGENCY CONTIGENCY PLAN

REGULATION VIII – FUGITIVE PM_{10} PROHIBITIONS

Rule 8010	*Fugitive Dust Administrative Requirements For Control Of* PM_{10}
Rule 8020	*Fugitive Dust Requirements for Control of* PM_{10} *from Construction, Demolition, Excavation and Extraction Activities*
Rule 8030	*Fugitive Dust Requirements for Control of* PM_{10} *from Bulk Materials*