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Organization:	Watson Cogeneration Company
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VIA EMAIL

July 20, 2020

Mr. Anwar Ali
Compliance Project Manager
California Energy Commission
1516 9th Street, MS-2000
Sacramento, California 95814-5512

Subject: **Watson Cogeneration Company (Facility #06755)**
Quarterly Emissions Report – AQ 28 – 2nd Quarter 2020
Submittal # 393

Dear Mr. Ali:

Attached is Watson Cogeneration Company's (Facility #06755) Quarterly Emissions Report for the second quarter of 2020. The report contains a table of emission limits (Table 1), a table of daily fuel and ammonia usage (Table 2A), a table of daily emissions (Table 2B), and a table of emissions during start up mode (Table 2C) for each of the site's four gas turbines. A CEC permit has been issued for a fifth train, but it has been removed from Table 1 since the unit has not been built. Along with the quarterly emissions report, please find copies of the last sulfur content analysis in the quarter for our refinery fuel gas and butane.

During the second quarter of 2020, Watson Cogeneration Company (WCC) experienced two breakdown events.

- 4/1/2020 – WCC experienced a Breakdown under Rule 430 at 8:07 PM, resulting in an exceedance of CEC Permit Conditions AQ-17. The issue was resolved at 8:41 PM, and notification was made to AQMD at 8:50 PM. Subsequent report was issued on 4/28/2020 and is attached.
- 5/30/2020 – WCC experienced a breakdown event under AQMD Rule 430, at 9:00 AM, resulting in an exceedance of CEC Permit Conditions AQ-17. Notification was made at 9:12 AM. Subsequent report was issued 6/26/2020 and is attached.

If you have any questions concerning this report, please do not hesitate to contact the undersigned.

Sincerely,

Craig Chi
Cogen Operations Engineer

bcc: Tracy Hoang, Marathon Los Angeles Refinery
Jimmie Espie, WCC
David Booth, WCC

Table 1

Emission Limits as required by the California Energy Commission Conditions of Certification

Turbine Number	Concentration Limits (ppmv @ 15% O_2)				Maximum Daily Emission Limits [4] (lbs/day)					Start-Up/Shutdown Emission Limits [5] (lbs/day)				
	NO_X	SO_2	CO	NH_3	NO_X	SO_2	CO	PM	ROG	NO_X	SO_2	CO	PM	ROG
1 - 4	8	2	2.5 [1] 4.5 [2]	20	2600	246	568	1244	531	2156	59	82	186	108
5	5	---	2.5 [3]	20	209	10	64	95	18	449	8	296	92	32

Notes:

1. Limit applies when turbine is operated at or above 85% capacity, except during startup and shutdown.
2. Limit applies when turbine is operated below 85% capacity, except during startup and shutdown.
3. Limit applies when turbine is operated at or above 50% capacity.
4. Limits do not apply on days when a start-up or shutdown has occurred. Limits pertain to combined emissions from Units 1-4.
5. Limits apply only on days when a start-up or shutdown has occurred. Limits pertain to stack emissions from individual Units.

Table 2A

Daily Fuel & Ammonia Usage

Date	Unit Start-Up or Shutdown	Fuel Usage - By Unit (mmbtu/hr)					Fuel Usage - By Fuel Type (mmbtu/hr)			Ammonia Usage - By Unit (lbs/day)			
		GTG #1	GTG #2	GTG #3	GTG #4	Boiler #42	Natural Gas	Refinery Gas	Butane	GTG #1	GTG #2	GTG #3	GTG #4
4/1/20		1090	1112	1058	1051	0	3474	675	162	1872	1476	1669	1604
4/2/20		1069	1092	1037	1034	0	3554	531	147	1905	1457	1682	1548
4/3/20		1068	1089	1033	1035	0	3504	577	144	2034	1475	1751	1628
4/4/20		1043	1065	1001	1001	0	3520	447	143	1952	1456	1806	1686
4/5/20		1058	1075	1013	1016	0	3526	482	155	2010	1476	1845	1658
4/6/20		1064	1086	1033	1026	0	3648	420	141	2026	1476	1770	1691
4/7/20		1053	1086	1029	1029	0	3459	618	119	2069	1476	1808	1668
4/8/20		1074	1083	1031	1038	0	3532	568	126	2147	1476	1906	1745
4/9/20		1070	1087	1053	1037	0	3646	465	137	2139	1476	1905	1744
4/10/20		1062	1088	1043	1030	0	3507	579	137	2074	1476	1894	1718
4/11/20		1055	1081	1027	1031	0	3530	527	137	2040	1476	1896	1712
4/12/20		1073	1087	1025	1031	0	3548	511	156	2019	1476	1846	1664
4/13/20		1077	1090	1009	1033	0	3522	571	117	1979	1476	1837	1616
4/14/20		1039	1084	997	1018	0	3438	593	106	1986	1549	1832	1628
4/15/20		1061	1095	1019	1022	0	3488	596	114	2015	1645	1817	1688
4/16/20		1085	1116	1021	1028	0	3511	607	132	1783	1482	1781	1661
4/17/20		1076	1102	1053	1048	0	3604	530	144	1958	1640	1700	1617
4/18/20		1058	1089	1014	1026	0	3594	467	126	2028	1644	1828	1683
4/19/20		1057	1087	1008	1021	0	3496	558	120	2040	1664	1816	1691
4/20/20		1115	1143	1090	1087	0	3472	841	122	2015	1631	1688	1623
4/21/20		1169	1203	1121	1136	0	3488	1016	124	2044	1647	1841	1702
4/22/20		1068	1103	1021	1028	0	3464	642	115	1848	1549	1691	1610
4/23/20		1038	1058	989	984	0	2971	957	141	1855	1552	1744	1655
4/24/20		1046	1076	1000	1000	0	3063	943	117	2008	1565	1849	1742
4/25/20		1032	1053	1013	1005	0	3225	728	150	2008	1523	1872	1764
4/26/20		1032	1062	1034	1027	0	3309	716	129	2007	1550	1899	1792
4/27/20		1083	1101	1070	1051	0	3408	738	158	2033	1557	1926	1818
4/28/20		1040	1074	1024	1018	0	3178	831	148	2057	1557	1949	1842
4/29/20		1017	1074	1017	1023	0	3197	803	131	2067	1557	1979	1871
4/30/20		1011	1070	1022	1015	0	3427	565	126	2046	1576	1922	1856
5/1/20		1021	1077	1026	1022	0	3323	686	136	2067	1834	2033	1971
5/2/20		1001	1061	999	1010	0	3169	770	132	2067	1933	2040	1987
5/3/20	Y	894	1064	1002	1014	0	3032	812	129	1836	1933	2040	1986
5/4/20		10	1221	1167	1164	0	2687	740	135	-16	1933	2040	1986
5/5/20		10	1193	1142	1143	0	2498	863	127	-15	1933	2040	1986
5/6/20		10	1205	1159	1154	0	2340	1061	127	-15	1933	2040	1986
5/7/20		10	1211	1179	1157	0	2631	790	136	-19	1933	2040	1986
5/8/20		10	1220	1189	1173	0	2562	887	143	-19	1933	2040	1986
5/9/20	Y	404	1164	1153	1109	0	2808	866	156	700	1933	2040	1986
5/10/20	Y	1042	1097	952	1035	0	3147	869	111	2067	1933	1817	1987
5/11/20		1020	1038	8	1001	0	2033	917	117	2067	1933	4	2032
5/12/20		1142	1162	9	1133	0	2511	808	128	2067	1933	5	2040
5/13/20	Y	626	1204	68	1162	0	2293	666	101	1087	1933	103	2040
5/14/20		9	1161	1111	1120	0	2673	587	142	-19	1933	2040	2007
5/15/20		10	1209	1144	1156	0	2926	449	144	-19	1933	2040	1986
5/16/20		10	1208	1137	1154	0	2908	462	140	-19	1933	2040	1986
5/17/20		10	1210	1147	1157	0	2899	476	148	-19	1933	2040	1986
5/18/20		9	1213	1180	1171	0	2795	639	139	-19	1933	2040	1986
5/19/20		9	1215	1167	1166	0	2772	647	138	-19	1933	2040	1986
5/20/20		64	1221	1189	1171	0	2718	741	187	-2	1933	2040	1987
5/21/20	Y	485	1182	1145	1134	0	2777	1019	150	820	1933	2040	1986
5/22/20		1099	1122	1097	1086	0	3158	1071	173	2067	1933	2040	1986
5/23/20		1089	1132	1103	1093	0	3393	869	155	2067	1905	2040	1986
5/24/20		1091	1132	1113	1094	0	3714	580	136	2067	1933	2040	1986
5/25/20		1105	1144	1120	1098	0	3867	473	127	2067	1933	2040	1987
5/26/20		1110	1151	1109	1084	0	4022	309	124	2067	1933	2040	1986
5/27/20		1108	1140	1102	1085	0	3931	372	132	2067	1933	2040	1986
5/28/20		1104	1140	1112	1098	0	4018	300	136	2087	1933	2060	2007
5/29/20		1108	1135	1108	1091	0	4008	290	144	2094	1933	2087	2034

Table 2A

Daily Fuel & Ammonia Usage

Date	Unit Start-Up or Shutdown	Fuel Usage - By Unit (mmbtu/hr)					Fuel Usage - By Fuel Type (mmbtu/hr)			Ammonia Usage - By Unit (lbs/day)			
		GTG #1	GTG #2	GTG #3	GTG #4	Boiler #42	Natural Gas	Refinery Gas	Butane	GTG #1	GTG #2	GTG #3	GTG #4
5/30/20		1102	1135	1120	1078	0	3865	437	133	2094	1933	2094	2040
5/31/20		1079	1121	1090	1078	0	3891	351	125	2094	1933	2094	2039
6/1/20		1080	1120	1074	1061	0	3396	814	126	2094	1933	2094	2040
6/2/20		1097	1137	1074	1073	0	3354	896	129	2094	1933	2094	2040
6/3/20		1116	1151	1088	1087	0	3807	503	132	2094	1933	2094	2040
6/4/20		1117	1136	1105	1086	0	3772	489	183	2094	1933	2094	2040
6/5/20		1085	1107	1071	1050	0	3604	545	163	2094	1933	2094	2040
6/6/20		1071	1095	1050	1035	0	3680	432	139	2094	1933	2094	2040
6/7/20		1055	1092	1077	1032	0	3731	414	111	2094	1933	2094	2040
6/8/20		1051	1104	1058	1042	0	3498	649	108	2094	1933	2094	2040
6/9/20		1065	1100	1038	1034	0	3666	470	100	2094	1933	2094	2040
6/10/20		1079	1112	1047	1046	0	3729	448	107	2094	1933	2094	2040
6/11/20		1095	1150	1114	1088	0	3830	506	110	2094	1933	2094	2040
6/12/20		1082	1120	1121	1063	0	3811	457	118	2094	1933	2094	2040
6/13/20		1102	1124	1130	1064	0	3835	439	147	2094	1933	2094	2040
6/14/20		1104	1133	1125	1073	0	3756	537	142	2094	1933	2094	2040
6/15/20		1100	1126	1122	1070	0	3802	468	147	2094	1933	2094	2040
6/16/20		1095	1109	1096	1062	0	3722	484	157	2094	1933	2094	2040
6/17/20		1074	1094	1070	1037	0	3408	695	171	2094	1933	2094	2040
6/18/20		1063	1095	1074	1043	0	3487	629	159	2094	1933	2094	2040
6/19/20		1048	1090	1052	1028	0	3583	505	131	2094	1933	2094	2040
6/20/20		1033	1070	1046	1006	0	3630	408	118	2094	1933	2094	2040
6/21/20		1030	1064	1045	998	0	3665	352	120	2094	1933	2094	2040
6/22/20		1051	1093	1052	1021	0	3595	493	130	2094	1933	2094	2040
6/23/20		1048	1080	1040	1024	0	3632	429	130	2094	1933	2094	2040
6/24/20		1024	1068	1025	1013	0	3485	532	114	2094	1933	2094	2040
6/25/20		1042	1079	1041	1023	0	3603	450	133	2094	1933	2094	2040
6/26/20		1026	1073	1031	1020	0	3598	446	106	2094	1933	2094	2040
6/27/20		1010	1047	1025	983	0	3349	599	117	2094	1933	2094	2040
6/28/20		1021	1045	1034	989	0	3377	558	154	2094	1933	2094	2040
6/29/20		1037	1072	1036	1022	0	3598	434	135	2094	1933	2094	2040
6/30/20		1007	1057	1010	1000	0	3352	619	104	2033	1933	2156	2040

Table 2B
Daily Emissions

Date	Unit Start-Up or Shutdown	Total Mass Emissions - GTG's #1 - 4 Midnight - Midnight (lbs/day)				
		NOX	SO2	CO	PM [1]	ROG [1]
4/1/20		1196.6	7.1	130.6	408.4	273.9
4/2/20		1225.4	7.5	106.0	400.6	268.6
4/3/20		1176.7	8.7	108.0	400.0	268.2
4/4/20		1247.9	7.8	111.4	388.9	260.7
4/5/20		1213.4	8.6	105.8	394.0	264.1
4/6/20		1274.3	5.9	117.9	398.2	266.9
4/7/20		1277.2	6.7	131.8	397.4	266.5
4/8/20		1253.4	9.9	145.1	400.1	268.3
4/9/20		1191.3	7.7	152.9	401.9	269.4
4/10/20		1186.8	7.6	149.9	399.8	268.0
4/11/20		1072.1	7.7	81.5	397.0	266.2
4/12/20		1131.4	7.9	77.2	399.0	267.5
4/13/20		1104.8	8.4	96.0	398.5	267.2
4/14/20		1144.9	11.8	86.4	391.7	262.6
4/15/20		1031.6	9.2	86.7	397.5	266.5
4/16/20		1041.8	10.1	83.4	402.5	269.9
4/17/20		1055.4	8.9	72.8	405.0	271.5
4/18/20		1025.2	6.8	70.4	396.1	265.5
4/19/20		1013.6	8.6	74.0	395.1	264.9
4/20/20		974.1	12.8	79.1	420.4	282.0
4/21/20		1063.1	10.9	76.2	439.0	294.6
4/22/20		1040.5	8.6	80.6	399.7	268.0
4/23/20		953.9	19.7	89.3	386.1	259.2
4/24/20		827.5	11.5	72.4	391.2	262.6
4/25/20		802.9	12.8	70.0	388.9	260.9
4/26/20		718.2	11.8	73.3	393.7	264.0
4/27/20		760.0	7.1	71.8	407.9	273.6
4/28/20		708.9	7.9	72.0	394.2	264.5
4/29/20		704.7	6.5	85.7	391.7	262.8
4/30/20		745.5	3.8	76.3	389.9	261.4
5/1/20		666.1	5.8	73.1	392.8	263.5
5/2/20		732.1	6.6	61.7	385.9	258.9
5/3/20	Y	746.0	7.1	64.5	376.7	252.8
5/4/20		777.4	6.2	13.8	337.8	226.7
5/5/20		815.6	6.6	12.6	331.1	222.3
5/6/20		862.2	6.0	30.8	335.4	225.3

Table 2B
Daily Emissions

Date	Unit Start-Up or Shutdown	Total Mass Emissions - GTG's #1 - 4 Midnight - Midnight (lbs/day)				
		NOX	SO2	CO	PM [1]	ROG [1]
5/7/20		820.0	4.1	34.9	337.6	226.6
5/8/20		774.8	4.2	48.0	341.0	229.0
5/9/20	Y	874.1	4.4	65.7	363.5	244.0
5/10/20	Y	747.8	6.3	93.2	391.4	262.6
5/11/20		915.4	7.4	78.9	291.6	195.9
5/12/20		795.4	5.5	42.6	327.1	219.6
5/13/20	Y	798.5	4.6	28.5	290.3	194.8
5/14/20		812.6	5.7	48.3	322.4	216.3
5/15/20		841.0	5.3	48.3	333.1	223.4
5/16/20		766.9	3.7	45.9	332.3	222.8
5/17/20		764.6	3.8	50.4	333.7	223.7
5/18/20		703.6	3.2	71.0	338.7	227.2
5/19/20		861.1	3.5	61.3	337.2	226.2
5/20/20		1066.6	19.9	77.4	345.8	232.1
5/21/20	Y	940.0	13.4	79.2	374.7	251.6
5/22/20		751.0	10.0	160.3	418.0	280.6
5/23/20		797.2	8.0	150.6	418.9	281.0
5/24/20		720.4	6.4	120.0	419.4	281.2
5/25/20		763.8	5.0	120.1	422.6	283.2
5/26/20		693.3	3.3	110.0	421.1	282.1
5/27/20		691.6	5.4	81.9	419.4	281.0
5/28/20		686.1	4.4	87.4	421.0	282.1
5/29/20		668.3	4.5	94.0	419.9	281.3
5/30/20		942.4	5.4	122.9	419.5	281.1
5/31/20		700.4	3.6	167.1	413.0	276.7
6/1/20		751.0	10.8	147.6	411.0	275.7
6/2/20		751.0	14.4	87.1	415.4	278.7
6/3/20		739.6	3.0	104.6	420.3	281.8
6/4/20		679.5	4.1	131.7	420.6	282.0
6/5/20		660.5	4.6	76.2	408.3	273.7
6/6/20		718.7	3.7	68.1	402.2	269.6
6/7/20		726.7	4.7	86.5	402.6	269.8
6/8/20		883.0	7.2	82.7	402.9	270.2
6/9/20		886.2	4.2	107.0	400.8	268.6
6/10/20		823.2	4.1	123.0	405.3	271.7
6/11/20		676.1	3.8	117.2	420.8	282.0

Table 2B

Daily Emissions

Date	Unit Start-Up or Shutdown	Total Mass Emissions - GTG's #1 - 4 Midnight - Midnight (lbs/day)				
		NOX	SO2	CO	PM [1]	ROG [1]
6/12/20		720.5	2.9	125.2	414.9	278.1
6/13/20		755.9	2.6	99.0	418.2	280.3
6/14/20		774.5	4.1	81.5	419.8	281.4
6/15/20		721.9	5.9	109.1	418.0	280.1
6/16/20		691.5	3.3	103.1	412.8	276.7
6/17/20		674.7	4.3	62.8	405.1	271.7
6/18/20		656.9	6.8	56.2	404.9	271.6
6/19/20		612.4	3.9	68.0	399.2	267.6
6/20/20		625.0	3.8	74.9	393.1	263.4
6/21/20		610.6	2.8	66.3	391.2	262.1
6/22/20		600.2	4.7	69.2	399.2	267.6
6/23/20		585.4	2.9	83.7	396.5	265.8
6/24/20		597.4	3.7	89.6	391.0	262.1
6/25/20		595.3	3.5	78.1	396.0	265.4
6/26/20		610.0	3.4	82.3	392.6	263.1
6/27/20		648.5	4.5	71.5	385.0	258.2
6/28/20		657.2	3.7	70.1	387.2	259.7
6/29/20		632.3	2.8	76.6	394.3	264.3
6/30/20		621.6	3.9	78.0	385.9	258.7

1. PM & ROG emission estimates were calculated using fuel based emission factors and fuel usage data.

Fuel	PM	ROG
Natural Gas:	0.00393	0.00263
Refinery Gas:	0.00402	0.00272
Butane:	0.00402	0.00272

The foregoing fuel based emission factors have been updated based on 1997 & 1998 stack testing.

Table 2C
Daily Emissions for Individual Units during Startup

Date	Unit	Total Mass Emissions - GTG's #1				
	Start-Up	Midnight - Midnight				
	or Shutdown	(lbs/day)				
		NOX	SO2	CO	PM 1	ROG 1
5/3/2020	Y	151.1	0.3	33.8	84.7	56.8
5/9/2020	Y	109.1	0.2	19.4	38.4	25.8
5/13/2020	Y	88.6	0.6	15.4	59.4	39.9
5/21/2020	Y	137.7	5.2	21.3	46.1	30.9

Date	Unit	Total Mass Emissions - GTG's #2				
	Start-Up	Midnight - Midnight				
	or Shutdown	(lbs/day)				
		NOX	SO2	CO	PM 1	ROG 1
	NONE					

Date	Unit	Total Mass Emissions - GTG's #3				
	Start-Up	Midnight - Midnight				
	or Shutdown	(lbs/day)				
		NOX	SO2	CO	PM 1	ROG 1
5/10/2020	Y	156.1	0.8	24.5	90.3	60.6
5/13/2020	Y	16.4	0.1	4.8	6.4	4.3

Date	Unit	Total Mass Emissions - GTG's #4				
	Start-Up	Midnight - Midnight				
	or Shutdown	(lbs/day)				
		NOX	SO2	CO	PM 1	ROG 1
	NONE					

Unit	Cogeneration Unit	
Sample Point	Eff.Before Compress	
Profile #	9007	
Date	6/29/2020	
Time	06:00	
Sample No.	1765179	
Status	Complete	
H2S - SCD-HiLvl	<1.0	ppm
COS - SCD-HiLvl	1	ppm
MeSH - SCD-HiLvl	<1.0	ppm
EtSH - SCD-HiLvl	<1.0	ppm
DMDS - SCD-HiLvl	<1.0	ppm
Other S Compds-SCD-HiLvl	<1.0	ppm
Sulfur (sum)-SCD-Calc	1	ppm

Unit	Cogeneration Unit	
Sample Point	Butane - TK 79	
Profile #	9010	
Date	6/29/2020	
Time	06:00	
Sample No.	1765180	
Status	Complete	
H2S - SCD-LoLvl	<0.1	ppm
COS - SCD-LoLvl	<0.1	ppm
MeSH - SCD-LoLvl	0.2	ppm
EtSH - SCD-LoLvl	0.2	ppm
DMDS - SCD-LoLvl	0.1	ppm
Other S Cmpds-SCD-LoLvl	0.5	ppm
Sulfur (sum)-SCD-Calc	1	ppm

Connie Chow
Environmental Department

Tesoro Refining & Marketing Company LLC
A subsidiary of Marathon Petroleum Corporation

Los Angeles Refinery – Carson Operations
2350 E. 223rd Street
Carson, California 90810
310-816-8100

April 28, 2020

VIA Certified Mail No. 7018 3090 0001 3560 7947
Return Receipt Requested

Title V Administrator
South Coast Air Quality Management District
PO Box #4944
Diamond Bar, CA 91765

Re: Title V Deviation Breakdown Report for Cogen
Notification # 606331
Facility ID No. 174655

Dear Title V Administrator,

Tesoro Los Angeles Refinery, Carson Operations is providing the enclosed Form 500-N for the Title V deviation breakdown notification made on April 1st, 2020 at 8:50 PM (Notification No. 606331). Please note that an extension was granted by Supervising Inspector, Eduardo Esparza, with a new due date of May 1, 2020.

Please contact me at (310) 847-5633 if you have questions or comments regarding this report.

Sincerely,

Connie Chow
Environmental Compliance Supervisor

Enclosure

cc: Env File 3E05-0046708

ecc: ECC 2020-4-1 Cogen NOx Exceedance
George Lamont, SCAQMD
Joshua Valdez, Marathon
David Booth, Marathon

South Coast Air Quality Management District

Form 500-N
Deviations, Emergencies, & Breakdowns

Mail Application To:
PO Box 4944
Diamond Bar, CA 91765

Tel: (909) 396-3385
www.aqmd.gov

**This written report is in addition to requirements to verbally report certain types of incidents. Verbal reports may be made by calling AQMD at 1-800-288-7664 (1-800-CUT-SMOG) or AQMD enforcement personnel.*

Section I - Facility Information

1. Permit to be issued to (Business name of operator to appear on permit): Tesoro Refining & Marketing Company LLC

2. Valid AQMD Facility ID (Available on Permit or Invoice Issued by AQMD): 174655

3. Address (where incident occurred): 2350 E. 223rd St

City: Carson **State:** CA **Zip Code:** 90810

4. Mailing Address (if different from Item 2): 2350 E. 223rd St

City: Carson **State:** CA **Zip Code:** 90810

5. Provide the name, title, and phone number of the person to contact for further information

Name	Title	Phone
Connie Chow	Environmental Compliance Supervisor	310-847-5633

Section II - Reporting of Breakdowns, Deviations, and Emergencies

1. This written notification is to report a(n):

	Type of Incident	Verbal Report Due*	Written Report Due
a.	Emergency under Rule 3002 (g)	Within 1 hour of discovery.	Within 2 working days from when the emission limit was exceeded
b.	✔ Breakdown under:		
	✔ Rule 430 (Non-RECLAIM)	For Rules 430 2004 - Within 1 hour of discovery	For Rules 430 2004 - Within 7 calendar days after breakdown is corrected, but no later than 30 days from the start of the breakdown, unless a written extension is granted
	Rule 2004 (RECLAIM)	For Rule 218 - Within 24 hours or next business day for failure/shutdown exceeding 24 hours.	For Rule 218 - With required semi-annual reports
	Rule 218 (Non-RECLAIM) [See Rule 218 (f)(3)]		
c.	Deviation with excess emissions [See Title V Permit, Section K, Condition No. 22B]	Within 72 hours of discovery of the deviation or shorter reporting period if required by an applicable State or Federal Regulation	Within 14 days of discovery of the deviation
d.	Other Deviation [See Title V Permit, Section K, Condition Nos. 22D & 23]	None	With required semi-annual reports

2. The incident was first discovered by: Operations **on?** 4/1/2020 (Date) 8:07:00 PM (Time)

3. The incident was first reported to: AQMD Operator #2 **on?** 4/1/2020 (Date) 8:50:00 PM (Time)

a. • Via Phone

b. In Person Notification Number (Required): 606331

4. When did the incident actually occur? 4/1/2020 (Date) 8:07:00 PM (Time)

AQMD USE ONLY						
	Recieved By:		Assigned By:		Inspector:	
	Date/Time Recieved:		Date/Time Assigned:		Date/Time Recieved Assignmen	
	Date Delivered to Team:		Date Reviewed Inspector Repo		Date Facility Inspected:	
	Team:	Sector:	Breakdown/Deviation Notification		Date Completed Report:	
	Recommended Action:	Cancel Notification	Grant Relief	Issue NOV No. _____	Other: _____	
	Final Action:	Cancel Notification	Grant Relief	Issue NOV No. _____	Other: _____	

Deviation ID: 1053

5. Has the incident stopped? a. • Yes, on: 4/1/2020 (Date) 8:41:00 PM (Time) b. No

6. What was the total duration of the incident? 0.6 (Days) (Hours)

7. For equipment with an operating cycle, as defined in Rule 430 (b)(3)(A), when was the end of the operating cycle during which the incident occured? N/A (Date) (Time)

8. Describe the incident and identify each piece of equipment (by permit, application, or device number) affected. Attach photos (when available) of the affected equipment and attach additional pages as necessary. Devices Affected: 1236, 1237

See Attachment

9. This incident may have resulted in a:

a. ✔ Violation of Permit Condition(s): A248.1, Administrative Condition E4, Administrative Condition E2

b. ✔ Violation of AQMD Rule(s): R203(b), R2004(f)(1), R3002(c)(1), NOX: 8 PPMV (4) [RULE 2005, 6-3-2011

10. What was the probable cause of the incident? Attach additional pages as necessary.

A failed control module (PAIC-RD-4AI-R) on GTG Unit 93's Mark VI controller caused the reactive power output to fluctuate erratically. The reactive power output fluctuation caused the DeNOx steam system to trip off line. This caused NOx emissions to increase above the limit of 8 ppm.

11. Did the incident result in excess emissions? No • Yes (Complete the following and attach calculations.)

VOC	lbs	✔ NOX	36.4 ppm	lbs	SOx	lbs	H2S	lbs
CO	lbs	PM		lbs	Other	lbs		pollutant

12. For RECLAIM facilities Subject to Rule 2004 (i)(3) ONLY: If excess emissions of NOx and/or SOx were reported in Item 11, do you want these emissions to be counted when determining compliance with your annual allocations?

a. Yes, for: NOx SOx b. No, for: NOx SOx

If box 12(b) above is checked, include all information specified in Rule 2004(i)(3)(B) and (C), as applicable.

13. Describe the steps taken to correct the problem (i.e., steps taken to mitigate excess emissions, equipment repairs, etc.) and the preventative measures employed to avoid future incidents. Include photos of the failed equipment if available and attach additional pages as necessary.

See Attachment

14. Was the facility operating properly prior to the incident?

a. • Yes b. No, because:

15. Did the incident result from operator error, neglect or improper operation or maintenance procedures?

a. Yes b. • No, because: No. The incident was a result of a failed control module at GTG Unit 93.

16. Has the facility returned to compliance?

a. No, because:

b. • Yes (Attach evidence such as emissions calculations, contemporaneous operating logs or other credible evidence.)

Section III - Certification Statement

I certify under penalty of law that based on information and belief formed after reasonable inquiry, the statements and information in this document and in all attachments and other materials are true, accurate, and complete.

For Title V Facilities ONLY: I also certify under penalty of law that that I am the responsible official for this facility as defined in AQMD Regulation XXX.

DIK Bradley Levi — Signature of Responsible Official

Vice President, Tesoro Los Angeles Refinery — Title

4-28-2020 — Date

Brad Levi — Type or Print Name of Responsible Official

310-816-8100 — Phone

310-847-5475 — Fax

2350 E. 223rd St — Address

Carson — City:

CA — State

90810 — Zip Code

Section IV - Attachments

8. Describe the incident and identify each piece of equipment (by permit, application, or device number) affected. Attach photos (when available) of the affected equipment and attach additional pages as necessary.

On April 1st, 2020, at approximately 8:07 pm, Cogeneration's Gas Turbine Generator (GTG) Unit 93 experienced an unexpected sudden decrease in DeNOx steam flow, resulting in elevated NOx stack emissions. DeNOx steam was lost from 8:07 pm to 8:20 pm. The 15-minute average concentration limit of 8 ppm corrected to 15% O2 was exceeded from 8:09 pm to 8:41 pm.

13. Describe the steps taken to correct the problem (i.e., steps taken to mitigate excess emissions, equipment repairs, etc.) and the preventative measures employed to avoid future incidents. Include photos of the failed equipment if available and attach additional pages as necessary.

In response to the trip of the DeNOx steam system, Operations immediately increased ammonia rates to reduce NOx emissions. Operations placed the DeNOx steam control on manual to bypass the failed module. DeNOx steam flow was re-established back to normal rates, bringing the NOx concentration down. The 15 min average NOx concentration dropped below the 8 ppm limit at 8:41 pm on the same day.

To prevent reoccurrence of similar incidents, Cogen will be shutting down GTG Unit 93 in the 2nd quarter of 2020 to replace the failed control module. In the interim, to minimize a potential reoccurrence, Cogen will be operating the reactive power output and DeNOx steam system on manual to prevent unexpected fluctuations and trips.

Environmental Department

Tesoro Refining & Marketing Company LLC
A subsidiary of Marathon Petroleum Corporation

Los Angeles Refinery – Carson Operations
2350 E. 223rd Street
Carson, California 90810
310-816-8100

June 26, 2020

7019 1640 0001 5296 8674
VIA Certified Mail
Return Receipt Requested

Title V Administrator
South Coast Air Quality Management District
PO Box #4944
Diamond Bar, CA 91765

Re: Title V Deviation Emergency Breakdown Report Notification #612805
Facility ID No. 174655

Dear Title V Administrator:

Tesoro Los Angeles Refinery – Carson Operations is providing the enclosed Form 500-N for the Title V Emergency Breakdown Notification made on 5/30/20 at approximately 9:12 AM. If there are any questions, please contact me at (310) 847-3949.

Sincerely,

Tracy Hoang
HES Professional

Enclosure: A – SCAQMD Form 500N

cc: Env File 3E05-0046708

ecc:
George Lamont, SCAQMD
Robert Nguyen – Marathon
Adrian Rosu - Marathon
Connie Chow – Marathon

South Coast Air Quality Management District

Form 500-N
Deviations, Emergencies, & Breakdowns

Mail Application To:
PO Box 4944
Diamond Bar, CA 91765

Tel: (909) 396-3385
www.aqmd.gov

**This written report is in addition to requirements to verbally report certain types of incidents. Verbal reports may be made by calling AQMD at 1-800-288-7664 (1-800-CUT-SMOG) or AQMD enforcement personnel.*

Section I - Facility Information

1. Permit to be issued to (Business name of operator to appear on permit): Tesoro Refining & Marketing Company LLC

2. Valid AQMD Facility ID (Available on Permit or Invoice Issued by AQMD): 174655

3. Address (where incident occurred): 2350 E. 223rd St

City: Carson **State:** CA **Zip Code:** 90810

4. Mailing Address (if different from Item 2): 2350 E. 223rd St

City: Carson **State:** CA **Zip Code:** 90810

5. Provide the name, title, and phone number of the person to contact for further information

Name	Title	Phone
Tracy Hoang	HES Professional	(310) 847-3949

Section II - Reporting of Breakdowns, Deviations, and Emergencies

1. This written notification is to report a(n):

	Type of Incident	Verbal Report Due*	Written Report Due
a.	☑ Emergency under Rule 3002 (g)	Within 1 hour of discovery.	Within 2 working days from when the emission limit was exceeded
b.	☑ Breakdown under: ☑ Rule 430 (Non-RECLAIM) ☐ Rule 2004 (RECLAIM) ☐ Rule 218 (Non-RECLAIM) [See Rule 218 (f)(3)]	For Rules 430 2004 - Within 1 hour of discovery For Rule 218 - Within 24 hours or next business day for failure/shutdown exceeding 24 hours.	For Rules 430 2004 - Within 7 calendar days after breakdown is corrected, but no later than 30 days from the start of the breakdown, unless a written extension is granted For Rule 218 - With required semi-annual reports
c.	☐ Deviation with excess emissions [See Title V Permit, Section K, Condition No. 22B]	Within 72 hours of discovery of the deviation or shorter reporting period if required by an applicable State or Federal Regulation	Within 14 days of discovery of the deviation
d.	☐ Other Deviation [See Title V Permit, Section K, Condition Nos. 22D & 23]	None	With required semi-annual reports

2. The incident was first discovered by: Environmental **on?** 5/30/2020 (Date) 9:00:00 AM (Time)

3. The incident was first reported to: Operator #7 **on?** 5/30/2020 (Date) 9:12:00 AM (Time)

a. ◉ Via Phone

b. ○ In Person Notification Number (Required): 612805

4. When did the incident actually occur? 5/30/2020 (Date) 8:45:00 AM (Time)

AQMD USE ONLY					
	Recieved By:		Assigned By:		Inspector:
	Date/Time Recieved:		Date/Time Assigned:		Date/Time Recieved Assignmen
	Date Delivered to Team:		Date Reviewed Inspector Repo		Date Facility Inspected:
	Team:	Sector:	Breakdown/Deviation Notification		Date Completed Report:
	Recommended Action:	Cancel Notification	Grant Relief	Issue NOV No. _____	Other: _____
	Final Action:	Cancel Notification	Grant Relief	Issue NOV No. _____	Other: _____

Deviation ID: 1060

5. Has the incident stopped? a. (•) Yes, on: 5/30/2020 (Date) 9:00:00 AM (Time) b. ( ) No

6. What was the total duration of the incident? 0.25 Hours

7. For equipment with an operating cycle, as defined in Rule 430 (b)(3)(A), when was the end of the operating cycle during which the incident occured? N/A (Date) (Time)

8. Describe the incident and identify each piece of equipment (by permit, application, or device number) affected. Attach photos (when available) of the affected equipment and attach additional pages as necessary. Devices Affected: D1226, D1233, D1236, D1227, D1234, D1237, D1228, D1239, D1240

At approximately 8:46 AM on May 30, 2020, Watson Cogeneration (Process 17) steam turbine generator 1 (STG #1) (D1228) tripped offline causing an unexpected loss in DeNOx steam flow. The average NOx concentration exceeded the 8 ppm limit for the 8:45 AM to 9:00 AM 15-minute block period.

9. This incident may have resulted in a:

a. [x] Violation of Permit Condition(s): Administrative Condition E2, Administrative Condition E4, A248.1, E73.1

b. [x] Violation of AQMD Rule(s): R203(b), R2004(f)(1), R3002(c)(1), R2005, NOX: 8 PPMV (4) [RULE 2005, 6-3-2011

10. What was the probable cause of the incident? Attach additional pages as necessary.

The NOx exceedance occurred after DeNOx steam flow was suddenly lost when STG #1 shut down on overspeed trip because a breaker unexpectedly opened.

11. Did the incident result in excess emissions? ( ) No (•) Yes (Complete the following and attach calculations.)

[ ] VOC	lbs	[x] NOX	>8ppm	lbs	[ ] SOx	lbs	[ ] H2S	lbs	
[ ] CO	lbs	[ ] PM		lbs	[ ] Other	lbs			pollutant

12. For RECLAIM facilities Subject to Rule 2004 (i)(3) ONLY: If excess emissions of NOx and/or SOx were reported in Item 11, do you want these emissions to be counted when determining compliance with your annual allocations?

a. ( ) Yes, for: [ ] NOx [ ] SOx b. ( ) No, for: [ ] NOx [ ] SOx

If box 12(b) above is checked, include all information specified in Rule 2004(i)(3)(B) and (C), as applicable.

13. Describe the steps taken to correct the problem (i.e., steps taken to mitigate excess emissions, equipment repairs, etc.) and the preventative measures employed to avoid future incidents. Include photos of the failed equipment if available and attach additional pages as necessary.

Operators immediately secured the equipment and reintroduced DeNOx steam; the NOx concentration fell below the 8 ppm limit at approximately 9:00 AM. Electrical and mechanical components of STG #1 were function tested and deficiencies identified were repaired.

14. Was the facility operating properly prior to the incident?

a. (•) Yes b. ( ) No, because:

15. Did the incident result from operator error, neglect or improper operation or maintenance procedures?

a. ( ) Yes b. (•) No, because: See Attachment

16. Has the facility returned to compliance?

a. ( ) No, because:

b. (•) Yes (Attach evidence such as emissions calculations, contemporaneous operating logs or other credible evidence.)

Section III - Certification Statement

I certify under penalty of law that based on information and belief formed after reasonable inquiry, the statements and information in this document and in all attachments and other materials are true, accurate, and complete.

For Title V Facilities ONLY: [x] I also certify under penalty of law that that I am the responsible official for this facility as defined in AQMD Regulation XXX.

Signature of Responsible Official	Title	Date
Bradley Levi	Vice President, Tesoro Los Angeles Refinery	6-26-2020

OK

Type or Print Name of Responsible Official	Phone	Fax
Brad Levi	310-816-8100	310-847-5475

Address	City:	State	Zip Code
2350 E. 223rd St	Carson	CA	90810

Section IV - Attachments

15. Did the incident result from operator error, neglect or improper operation or maintenance procedures?

The cause of the NOx exceedance was the STG #1 trip which resulted in a loss of DeNOx steam