

APPENDIX 5.1A

Calculation of Maximum Hourly, Daily, and Annual Emissions

Calculation of Maximum Hourly, Daily, and Annual Emissions

Tables presented in this Appendix are as follows:

5.1A-1	Ammonia Slip Emissions
5.1A-2	Maximum Hourly, Daily, and Annual Emissions Estimates
5.1A-3	Fuel Use Calculations
5.1A-4	Turbine Air Toxic Emissions Estimates
5.1A-5	Turbine Performance Data Sheets
5.1A-6	Emergency Generator Set Emissions Estimates
5.1A-7	Emergency Generator Set Air Toxic Emissions Estimates
5.1A-8	EMFAC 2007 (V2.3) Composite Emission Factors (Vehicle Sources)
5.1A-9	EMFAC 2007 (V2.3) Burden Emissions Output

In addition to the above tables, other miscellaneous support data for the device-specific emissions calculations is also included in this Appendix.

1. MMC Chula Vista Title V Permit (#978119) including APCD PTO #976039.

App5.1A-permit-doc-1.doc through -doc-5.doc

**Table 5.1A-1
MMC Chula Vista**

Ammonia Slip Emissions Calculation

Data Input:

NH3 Limit, ppm @ 15% O2:	5	
Exhaust rate, lbs/hr:	1073124	
Exhaust MW:	28.1	
Mole% O2:	12.945	0.12945 frac
Mole % H2O:	10.662	0.10662 frac

Project:	MMC Chula Vista
Scenario:	Case 22
# of Units:	2
Op Hours:	24 hrs/day
	4400 hrs/year

Per Unit		All Units	
3.16	lbs/hr	6.31	lbs/hr
75.8	lbs/day	151.5	lbs/day
6.9	tons/yr	13.9	tons/yr

Ref: All input data from GE operational scenario list and technical data.

Table 5.1A-2
Detailed Calculations for Maximum Hourly, Daily and Annual Criteria Pollutant Emissions

Maximum Hourly, Daily and Annual Emissions								NOx			SO2	CO			VOC			PM10
	Base Load			Cold Start		Hot Start		Base Load	Cold Start	Warm Start	lb/hr	Base Load	Cold Start	Hot Start	Base Load	Cold Start	Hot Start	lb/hr
	max. hour	hrs/day	hrs/yr	hrs/day	hrs/yr	hrs/day	hrs/yr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr
Turbine 1	1	18	3500	1	200	1	200	4.2	19.3	12.2	1.10	6.2	14.3	10.8	1.1	1.4	1.4	3.0
Turbine 2	1	18	3500	1	200	1	200	4.2	19.3	12.2	1.10	6.2	14.3	10.8	1.1	1.4	1.4	3.0
Turbine 1, w/ fogging	0	4	500	0	0	0	0	4.2	0	0	1.10	6.2	0	0	1.2	0.0	0.0	3.0
Turbine 2, w/ fogging	0	4	500	0	0	0	0	4.2	0	0	1.10	6.2	0	0	1.2	0.0	0.0	3.0
Em. Gen Set	1	1	52	0	0	0	0	5.16	0	0	0.33	4.9	0	0	0.5	0.0	0.0	0.28

	NOx			SO2			CO			VOC			PM10		
	Max lb/hr	Max lb/day	Total tpy												
Turbine 1	19.3	107.1	10.5	1.1	22.0	2.1	14.3	136.7	13.4	1.4	22.6	2.2	3.0	60.0	5.9
Turbine 2	19.3	107.1	10.5	1.1	22.0	2.1	14.3	136.7	13.4	1.4	22.6	2.2	3.0	60.0	5.9
Turbine 1, w/ fogging	0.0	16.8	1.1	0.0	4.4	0.3	0.0	24.8	1.6	0.0	4.8	0.3	0.0	12.0	0.8
Turbine 2, w/ fogging	0.0	16.8	1.1	0.0	4.4	0.3	0.0	24.8	1.6	0.0	4.8	0.3	0.0	12.0	0.8
Em Gen Set	5.16	5.16	0.1	0.33	0.3	0.01	4.9	4.9	0.1	0.5	0.5	0.01	0.28	0.28	0.01
Total	43.8	253.0	23.2	2.5	53.1	4.8	33.5	327.9	29.9	3.3	55.3	5.0	6.3	144.3	13.2
	lb/hr	lb/day	tpy												

Assumptions:

- Each turbine has one cold start and one hot start on worst case day; startups lag by two hours.
- Two turbines startup during the same hour
- NOx 2.5 ppm
- CO 6 ppm
- VOC 2.0 ppm
- Emergency generator tested on hour per week, 52 hours per year.

Table 5.1A-3
FUEL USE CALCULATIONS

MMC Chula Vista
 2-LM6000 turbines

Fuel Type: **Natural Gas**
 Btu/scf: **1018** HHV (typical APCD value)

<i>Heat Input Ratings</i>				Equivalent mmscf/hr
Turbine:	468.8	mmbtu/hr		0.461
HRSG:	0	mmbtu/hr		0.000
				0.461 Subtotal

<i>Operating Hours</i>		hrs/day	hrs/yr	
Turbine:	24	4400		(includes startup/shutdown hours)
HRSG:	0	0		

<i>Fuel Use</i>		mmscf/day	mmscf/yr	
Turbine:	1.11E+01	2.03E+03		
HRSG:	0.00E+00	0.00E+00		
	1.11E+01	2.03E+03	Subtotals	

Number of Units: **2**

Total	mmscf/hr	mmscf/day	mmscf/yr
Fuel Use	9.21E-01	2.21E+01	4.052E+03

Notes: n/a

**Table 5.1A-4
MMC Chula Vista
Calculation of Hazardous and Toxic Pollutant Emissions**

of Units: 2
Fuel HHV: 1018 btu/scf

Compound	Calculation of Noncriteria Pollutant Emissions from Gas Turbines (each turbine)				All Turbines			
	Emission Factor, lb/MMscf	Maximum Hourly Emissions, lb/hr	Maximum Daily Emissions, lb/day	Annual Emissions, lb/yr	Maximum Hourly Emissions, lb/hr	Maximum Daily Emissions, lb/day	Annual Emissions, lb/yr	Annual Emissions, tons/yr
Acetaldehyde	1.37E-01	6.43E-02	1.55E+00	3.21E+02	1.29E-01	3.10E+00	6.41E+02	0.32058
Acrolein	1.89E-02	8.86E-03	2.14E-01	4.42E+01	1.77E-02	4.27E-01	8.85E+01	0.04423
Ammonia	(3)	3.20E+00	7.68E+01	1.41E+04	6.40E+00	1.54E+02	2.82E+04	14.08000
Benzene	1.33E-02	6.24E-03	1.50E-01	3.11E+01	1.25E-02	3.01E-01	6.22E+01	0.03112
1,3-Butadiene	1.27E-04	5.96E-05	1.44E-03	2.97E-01	1.19E-04	2.87E-03	5.94E-01	0.00030
Ethylbenzene	1.79E-02	8.40E-03	2.02E-01	4.19E+01	1.68E-02	4.05E-01	8.38E+01	0.04189
Formaldehyde	9.17E-01	4.30E-01	1.04E+01	2.15E+03	8.60E-01	2.07E+01	4.29E+03	2.14578
Hexane	2.59E-01	1.21E-01	2.93E+00	6.06E+02	2.43E-01	5.85E+00	1.21E+03	0.60606
Naphthalene	1.66E-03	7.79E-04	1.88E-02	3.88E+00	1.56E-03	3.75E-02	7.77E+00	0.00388
Total PAHs	2.41E-04	1.13E-04	2.72E-03	5.64E-01	2.26E-04	5.45E-03	1.13E+00	0.00056
Propylene	7.71E-01	3.62E-01	8.71E+00	1.80E+03	7.23E-01	1.74E+01	3.61E+03	1.80414
Propylene oxide	4.78E-02	2.24E-02	5.40E-01	1.12E+02	4.48E-02	1.08E+00	2.24E+02	0.11185
Toluene	7.10E-02	3.33E-02	8.02E-01	1.66E+02	6.66E-02	1.60E+00	3.32E+02	0.16614
Xylene	2.61E-02	1.22E-02	2.95E-01	6.11E+01	2.45E-02	5.90E-01	1.22E+02	0.06107
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00000
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00000
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00000
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00000
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00000
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00000
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00000
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00000
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00000
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00000
*	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00000

- Notes:
- (1) Provided by CATEF database.
 - (2) Based on maximum hourly turbine fuel use of: 4.69E-01 mmscf/hr
Based on a maximum daily turbine fuel use of: 1.13E+01 mmscf/day
Based on maximum annual turbine fuel use of: 2.34E+03 mmscf/yr
Fuel use values from Fuel Calculation Sheet
 - (3) Values from ammonia slip calculations.
 - (4) Fuel use values include HRSG duct burner(s) Yes or No: No

Each Turbine 24 Max hrs/day
Each Turbine 4400 Max Hrs/yr

**MMC Chula Vista Expansion
CTG Performance Runs - Design Basis**

TABLE 5.1A-5
(total of 21 pages)

G. Pratt 10/26/2006

Notes:

- 1 Based on LM6000 PC unit
- 2 Assumes SCR tempering air fan must always be in operation
- 3 Tempering air fan sized for hot day, 50 F over temperature
- 4 Max turndown on tempering air fan assumed to be 35% of rated fan capacity, based on mass flow
- 5 Fan airflow is ignored in calculation of stack molecular weight, and therefore volumetric flow.
- 6 GE CTG emissions data are estimates from GE's performance deck
- 7 Data for CTG load less than 50% are for reference only. CTG emissions are not guaranteed below 50%.

TABLE 5.1A-6

MMC

Expected Standby Generator Emissions

Engine		
Manufacturer		Caterpillar
Model		3412C TA
Capacity (w/ fan)	kW	550
Brake Horsepower	bhp	851
Speed	rpm	1,800
Fuel		Diesel
Specific Gravity		0.825
Fuel Sulfur Content	mass %	0.05%
Fuel Consumption	gal/hr	48.0
Exhaust Temperature	deg. F	958
Exhaust Flow	cfm	6,459
Exhaust Pipe Diameter	in	10
Number of Exhaust Pipes		1
Exhaust Stack Height	ft	15
Emissions		
Exhaust Velocity	ft/sec	197
NO _x	g/bhp-hr	2.75
CO	g/bhp-hr	2.60
VOC	g/bhp-hr	0.25
PM ₁₀	g/bhp-hr	0.15
NO _x	lb/hr	5.16
CO	lb/hr	4.88
VOC	lb/hr	0.47
PM ₁₀	lb/hr	0.28
SO ₂	lb/hr	0.33

TABLE 5.1A-7

MMC Chula Vista

Liquid Fuel IC Engine Air Toxics Emissions Calculations

Engine Service:	Emergency Generator		
Fuel Type:	Diesel	Max Hrs/Day:	1
Gal/Hr:	48	Max Hrs/Yr:	52
Mgal/Hr:	0.048		
Mgal/Yr:	2.496		

Substance	EF			
	lbs/Mgal	lbs/hr	lbs/yr	tons/yr
Acenaphthene	6.71E-04	3.22E-05	1.67E-03	8.37E-07
Acenaphthylene	1.02E-03	4.90E-05	2.55E-03	1.27E-06
Anthracene	2.23E-04	1.07E-05	5.57E-04	2.78E-07
Benzo-a-anthracene	9.60E-05	4.61E-06	2.40E-04	1.20E-07
BaP	7.90E-05	3.79E-06	1.97E-04	9.86E-08
Benzo-a-fluoranthene	1.12E-04	5.38E-06	2.80E-04	1.40E-07
Benzo-ghi-perylene	9.00E-05	4.32E-06	2.25E-04	1.12E-07
Benzo-k-fluoranthene	7.83E-05	3.76E-06	1.95E-04	9.77E-08
Chrysene	1.30E-04	6.24E-06	3.24E-04	1.62E-07
Dibenz-ah-anthracene	8.20E-05	3.94E-06	2.05E-04	1.02E-07
Fluoranthene	3.30E-04	1.58E-05	8.24E-04	4.12E-07
Fluorene	9.65E-04	4.63E-05	2.41E-03	1.20E-06
Indeno-123cd-pyrene	8.45E-05	4.06E-06	2.11E-04	1.05E-07
Naphthalene	1.60E-02	7.68E-04	3.99E-02	2.00E-05
Phenanthrene	3.54E-03	1.70E-04	8.84E-03	4.42E-06
Pyrene	2.64E-04	1.27E-05	6.59E-04	3.29E-07
Ethylbenzene	6.76E-03	3.24E-04	1.69E-02	8.44E-06
13 Butadiene	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Acetaldehyde	3.47E-03	1.67E-04	8.66E-03	4.33E-06
Acrolein	1.07E-03	5.14E-05	2.67E-03	1.34E-06
Benzene	1.81E-01	8.69E-03	4.52E-01	2.26E-04
Formaldehyde	5.10E-02	2.45E-03	1.27E-01	6.36E-05
Propylene	3.41E-01	1.64E-02	8.51E-01	4.26E-04
Toluene	6.10E-02	2.93E-03	1.52E-01	7.61E-05
Xylenes	2.10E-02	1.01E-03	5.24E-02	2.62E-05
Hexane	1.39E-03	6.67E-05	3.47E-03	1.73E-06
Arsenic	1.60E-03	7.68E-05	3.99E-03	2.00E-06
Beryllium	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Cadmium	1.50E-03	7.20E-05	3.74E-03	1.87E-06
Hex Chromium	1.00E-04	4.80E-06	2.50E-04	1.25E-07
Copper	4.10E-03	1.97E-04	1.02E-02	5.12E-06
Lead	8.30E-03	3.98E-04	2.07E-02	1.04E-05
Manganese	3.10E-03	1.49E-04	7.74E-03	3.87E-06
Mercury	2.00E-03	9.60E-05	4.99E-03	2.50E-06
Nickel	3.90E-03	1.87E-04	9.73E-03	4.87E-06
Selenium	2.20E-03	1.06E-04	5.49E-03	2.75E-06
Zinc	2.24E-02	1.08E-03	5.59E-02	2.80E-05
Diesel PM	see IC Engine calc sheet for PM10 emissions			

	lbs/hr	lbs/yr	HARP CAS #
Diesel Exhaust PM	3.50E-03	1.82E-01	9901
Diesel Exhaust Organic Gas	3.20E-02	1.67E+00	9902

EFs: CARB-CATEF Database (mean values for source type and category)

Metals EFs from VCAPCD, 1/8/96

Table 5.1A-8

EMFAC Composite Emissions Factor Conversion

EMFAC 2007, V2.3, Nov 2006

✓ County: San Diego County
 Year: 2007
 Model Years: 1965 - 2007

	EMFAC Burden Output							
	LDP	LDT(gas)	LDT(diesel)	MDT	HDGT	HDDT	Buses	Motorcycles
Daily VMT/1000	42054	29000	457	11524	629	2653	121	784
Daily VMT	42054000	29000000	457000	11524000	629000	2653000	121000	784000
ROG, tpd	25.02	15.95	0.04	8.8	2.25	3.08	0.14	4.93
CO, tpd	226.81	168	0.3	87.07	28.53	12.77	0.9	47.94
NOx, tpd	19.63	19.23	0.77	16.11	3.57	44.45	2.11	1.18
CO2, tpd (x 1000) >	18590	15750	180	9010	490	5050	310	110
PM10, tpd	1.58	1.43	0.04	0.62	0.03	1.89	0.04	0.05
SOx, tpd	0.18	0.15	0	0.09	0.01	0.05	0	0

	Composite Efs							
	LDP	LDT(gas)	LDT(diesel)	MDT	HDGT	HDDT	Buses	Motorcycles
	g/VMT	g/VMT	g/VMT	g/VMT	g/VMT	g/VMT	g/VMT	g/VMT
ROG	0.54	0.50	0.0013	0.69	3.25	1.05	1.05	5.70
CO	4.89	5.26	0.0094	6.85	41.15	4.37	6.75	55.47
NOx	0.42	0.60	0.0241	1.27	5.15	15.20	15.82	1.37
CO2	401.02	492.69	5.6308	709.28	706.71	1726.82	2324.18	127.28
PM10	0.03	0.04	0.0013	0.05	0.04	0.65	0.30	0.06
SOx	0.0039	0.0047	0.0000	0.0071	0.0144	0.0171	0.0000	0.0000

Weighted Avg LDP/LDT Gasoline

	g/VMT	Calc 1	0.40814029
ROG	0.523	Calc 2	0.59185971
CO	5.041		
NOx	0.496		
CO2	438.435		
PM10	0.038		
SOx	0.004		

Title : SDAPCD-2007
 Version : Emfac2007 V2.3 Nov 1 2006
 Run Date : 2007/01/11 15:31:29
 Scen Year : 2007 -- All model years in the range 1965 to 2007 selected
 Season : Annual
 Area : San Diego County APCD Average
 I/M Stat : Enhanced Interim (2005) -- Using I/M schedule for area 38 San Diego (SD)
 Emissions: Tons Per Day

TABLE 5.1A-9

	Light Duty Passenger Cars				Light Duty Trucks				Medium Duty Trucks				Heavy Duty Trucks				Urban Buses	Motorcycles	All Vehicles	
	Non-cat	Cat	Diesel	Total	Non-cat	Cat	Diesel	Total	Non-cat	Cat	Diesel	Total	Non-cat	Cat	Diesel	Total				
Vehicles	25369	1109840	5634	1140840	12916	701793	12682	727391	3083	240745	16029	259857	3017	27937	30954	28021	58975	858	80847	226870
WMT/1000	434	41476	143	42054	263	28737	457	29457	76	10652	797	11524	33	596	629	2653	3283	121	784	87224
Trips	103497	7022700	32000	7158190	53575	4460660	79122	4593360	27454	2476500	10371	2699130	35875	217425	253299	471663	724962	3430	161678	15340700
Total Organic Gas Emissions																				
Run Exh	3.22	5.76	0.03	9.01	1.98	4.02	0.04	6.04	0.70	2.88	0.22	3.80	0.26	0.70	0.95	2.80	3.76	0.14	3.60	26.34
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.28	0.29	0.00	0.00	0.35
Start Ex	0.65	5.40	0.00	6.04	0.33	3.31	0.00	3.64	0.20	2.26	0.00	2.46	0.44	0.48	0.92	0.00	0.92	0.00	0.47	13.54
Total Ex	3.86	11.16	0.03	15.05	2.31	7.33	0.04	9.68	0.90	5.19	0.22	6.31	0.70	1.19	1.89	3.08	4.97	0.14	4.07	40.23
Diurnal	0.16	0.96	0.00	1.12	0.08	0.51	0.00	0.59	0.01	0.14	0.00	0.15	0.00	0.01	0.01	0.00	0.01	0.00	0.16	2.03
Hot Soak	0.36	1.21	0.00	1.67	0.19	0.70	0.00	0.89	0.03	0.25	0.00	0.28	0.02	0.01	0.03	0.00	0.03	0.00	0.09	2.96
Running	2.12	4.27	0.00	6.40	0.72	3.68	0.00	4.41	0.11	1.84	0.00	1.95	0.19	0.14	0.33	0.00	0.33	0.00	0.51	13.59
Resting	0.13	0.65	0.00	0.78	0.07	0.36	0.00	0.43	0.01	0.10	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.11	1.43
Total	6.63	18.36	0.03	25.02	3.26	12.59	0.04	16.00	1.06	7.53	0.22	8.80	0.91	1.34	2.25	3.08	5.34	0.14	4.93	60.23
Carbon Monoxide Emissions																				
Run Exh	38.82	128.67	0.12	167.62	23.11	104.53	0.30	127.94	11.64	47.68	0.96	60.28	5.97	11.77	17.74	11.89	29.62	0.87	46.28	432.62
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.29
Start Ex	3.52	55.67	0.00	59.19	1.81	38.55	0.00	40.36	1.45	25.01	0.00	26.46	3.47	7.23	10.70	0.00	10.70	0.03	1.65	138.40
Total Ex	42.34	184.34	0.12	226.81	24.92	143.08	0.30	168.30	13.10	72.99	0.97	87.07	9.46	19.08	28.53	12.77	41.30	0.90	47.94	572.31
Oxides of Nitrogen Emissions																				
Run Exh	2.13	13.38	0.24	15.75	1.27	14.34	0.77	16.18	0.52	7.56	4.32	12.39	0.15	2.44	2.59	42.62	45.22	2.10	1.12	92.96
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.83	1.83	0.00	0.00	1.88
Start Ex	0.16	3.72	0.00	3.88	0.08	3.53	0.00	3.61	0.04	3.63	0.00	3.67	0.06	0.92	0.98	0.00	0.98	0.00	0.06	12.20
Total Ex	2.29	17.10	0.24	19.63	1.36	17.87	0.77	20.00	0.56	11.18	4.36	16.11	0.21	3.36	3.57	44.45	48.02	2.11	1.18	107.04
Carbon Dioxide Emissions (000)																				
Run Exh	0.25	17.69	0.06	18.00	0.15	15.15	0.18	15.47	0.08	8.25	0.45	8.77	0.03	0.44	0.47	4.93	5.40	0.31	0.10	48.05
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.11	0.12	0.00	0.00	0.13
Start Ex	0.02	0.57	0.00	0.59	0.01	0.44	0.00	0.45	0.01	0.23	0.00	0.23	0.01	0.01	0.02	0.00	0.02	0.00	0.01	1.31
Total Ex	0.27	18.26	0.06	18.59	0.16	15.59	0.18	15.93	0.06	8.49	0.46	9.01	0.03	0.45	0.49	5.05	5.54	0.31	0.11	49.49
PM10 Emissions																				
Run Exh	0.02	0.54	0.02	0.57	0.01	0.70	0.03	0.74	0.00	0.27	0.05	0.32	0.00	0.01	0.01	1.71	1.72	0.04	0.04	3.43
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.00	0.00	0.04
Start Ex	0.00	0.05	0.00	0.05	0.00	0.06	0.00	0.06	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
Total Ex	0.02	0.59	0.02	0.63	0.01	0.76	0.03	0.80	0.00	0.29	0.05	0.34	0.00	0.01	0.01	1.75	1.76	0.04	0.04	3.61
TireWear	0.00	0.37	0.00	0.37	0.00	0.25	0.00	0.26	0.00	0.10	0.01	0.11	0.00	0.01	0.01	0.07	0.08	0.00	0.00	0.83
BrakeWear	0.01	0.57	0.00	0.58	0.00	0.40	0.01	0.41	0.00	0.15	0.01	0.16	0.00	0.01	0.01	0.06	0.07	0.00	0.01	1.23
Total	0.03	1.53	0.02	1.58	0.02	1.41	0.04	1.47	0.01	0.54	0.07	0.62	0.00	0.02	0.03	1.89	1.92	0.04	0.05	5.67
Lead	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SOx	0.00	0.18	0.00	0.18	0.00	0.15	0.00	0.16	0.00	0.08	0.00	0.09	0.00	0.00	0.01	0.05	0.05	0.00	0.00	0.48
Fuel Consumption (000 gallons)																				
Gasoline	35.86	1902.04	0.00	1937.90	21.36	1621.09	0.00	1642.45	9.01	882.59	0.00	891.60	5.19	49.90	55.09	0.00	55.09	1.88	20.41	4549.32
Diesel	0.00	0.00	5.14	5.14	0.00	0.00	0.00	15.75	15.75	0.00	0.00	41.03	41.03	0.00	0.00	454.38	454.38	26.73	0.00	543.04

Title : SDAPCD-2007
 Version : Emfac2007 V2.3 Nov 1 2006
 Run Date : 2007/01/11 15:31:29
 Scen Year : 2007 -- All model years in the range 1965 to 2007 selected
 Season : Annual
 Area : San Diego County APCD Average
 I/M Stat : Enhanced Interim (2005) -- Using I/M schedule for area 38 San Diego (SD)
 Emissions: Tons Per Day

	Light Duty Trucks 1 (T1)				Light Duty Trucks 2 (T2)				Medium Duty Trucks (T3)				Light-Heavy Duty Trucks 1 (T4)				Light-Heavy Duty Trucks 2 (T5)												
	Non-cat	Cat	Diesel	Total	Non-cat	Cat	Diesel	Total	Non-cat	Cat	Diesel	Total	Non-cat	Cat	Diesel	Total	Non-cat	Cat	Diesel	Total									
Vehicles	8297	175548	11303	195147	4620	526245	1379	532244	2614	205522	1034	209170	308	30026	9219	39554	161	5197	5775	11133	2814								
WMT/1000	168	168	7118	8465	315	1734	150	708	4547	64	9050	44	23758	64	9050	44	23758	64	9050	44	23758								
Trips	1048	1539	1477	15	82	21	100	315	34092	1115600	70823	1220520	19483	3345060	8299	3372840	11936	1311790	6555	1330280	10194	992869	115969	1119030	5324	171845	72647	249816	29621
Total Organic Gas Emissions																													
Run Exh	1.28	0.87	0.04	2.15	0.70	3.18	0.01	3.89	0.61	1.66	0.00	2.27	0.06	1.08	0.12	1.26	0.03	0.15	0.09	0.27	0.20								
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00									
Start Ex	0.22	0.67	0.00	0.89	0.12	2.64	0.00	2.75	0.09	1.29	0.00	1.38	0.08	0.83	0.00	0.91	0.04	0.14	0.00	0.17									
Total Ex	1.49	1.51	0.04	3.04	0.82	5.82	0.01	6.64	0.70	2.95	0.00	3.65	0.14	1.95	0.12	2.21	0.07	0.29	0.09	0.45									
Carbon Monoxide Emissions																													
Run Exh	14.93	24.12	0.27	39.32	8.18	80.41	0.03	88.62	9.50	34.96	0.03	44.88	1.18	11.18	0.58	12.95	0.56	1.54	0.36	2.46									
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
Start Ex	1.17	8.61	0.00	9.77	0.64	29.94	0.00	30.58	0.74	13.16	0.00	13.90	0.47	10.27	0.00	10.73	0.24	1.59	0.00	1.83									
Total Ex	16.10	32.73	0.27	49.10	8.82	110.35	0.03	119.21	10.64	48.12	0.03	58.78	1.65	21.71	0.59	23.95	0.81	3.17	0.36	4.34									
Oxides of Nitrogen Emissions																													
Run Exh	0.82	2.33	0.70	3.85	1.06	12.01	0.07	12.54	0.49	5.99	0.07	6.56	0.02	1.36	2.62	3.99	0.01	0.21	1.63	1.84									
Idle Exh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00										
Start Ex	0.05	0.56	0.00	0.61	0.03	2.97	0.00	3.00	0.03	1.31	0.00	1.34	0.01	1.98	0.00	1.99	0.00	0.33	0.00	0.33									
Total Ex	0.87	2.89	0.70	4.46	1.09	14.99	0.07	15.54	0.52	7.31	0.07	7.90	0.02	3.34	2.65	6.01	0.01	0.54	1.65	2.19									
Carbon Dioxide Emissions (0																													

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PREAMBLE

This Title V Operating Permit consists of this document and all appendices, including District permits incorporated by reference. The facility is subject to all applicable requirements identified within this permit, unless a specific permit shield is specified within this permit. If an applicable requirement is omitted from this permit, the facility is still obligated to comply with such an applicable requirement. The permittee must comply with all of the terms listed in each section of this permit.

This permit contains five major sections: Section I contains the Regulation XIV requirements required to carry out the Title V Operating Permit program. Section II contains the requirements that are applicable to the facility on a facility-wide basis. Section III contains the requirements that are applicable to individual emission units which have been issued District permits or District registration, or which have been determined to be insignificant emission units. Section IV contains terms and requirements pertaining to variance procedures and compliance schedules, if applicable to the facility. Section V contains three appendixes. Appendix A contains all the District permits incorporated within this permit. Appendix B contains a table of all rules approved by the District and the rules contained in the State Implementation Plan (SIP). Appendix C contains a list of abbreviations used within this permit. The basis for each condition is noted in brackets following each condition.

Copies of the Rules and Regulations of the Air Pollution Control District of San Diego County and the Rules and Regulations for San Diego County contained in the SIP approved by EPA may be obtained at the District. Copies are also available for review at the following locations:

SD Air Pollution Control District (Library & Public Review Area)	County of SD Law Library (Downtown)	County of SD Law Library (North County)
10124 Old Grove Rd	1105 Front St.	325 S. Melrose Suite 300
San Diego, CA 92131-1649 (858) 586-2600	San Diego, CA 92101 (619) 531-3900	Vista, CA 92083 (760) 940-4386

The current Rules and Regulations of the Air Pollution Control District of San Diego County may also be viewed and downloaded using the following internet address:

www.sdapcd.org

The following addresses should be used to submit any certifications, reports or other information required by this permit:

SD Air Pollution Control District Compliance Division 10124 Old Grove Rd San Diego, CA 92131-1649	USEPA Region IX Director of the Air Division Attn: Air-3 75 Hawthorne Street San Francisco, CA 94105
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SECTION I. REGULATION XIV PERMIT REQUIREMENTS

A. ADMINISTRATIVE PERMIT TERMS

1. This Title V Operating Permit expires on April 12, 2010. [Rule 1410]
2. Commencing or continuing operation under this permit to operate shall be deemed acceptance of all terms and conditions specified within this permit. This does not limit the right of the applicant to seek judicial review or seek federal EPA review of a permit term or condition. [Rule 1421]
3. This permit may be modified, revoked, reopened and reissued, or terminated by the District for cause. [Rule 1421]
4. The filing of a request by the facility for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay the applicability of any permit condition. [Rule 1421]
5. This permit does not convey any property rights of any sort, nor any exclusive privilege. [Rule 1421]
6. The need for the permittee to halt or reduce a permitted activity in order to maintain compliance with any term or condition of this permit shall not be a defense for any enforcement action brought as a result of a violation of any such term or condition. [Rule 1421]
7. In the event of challenge to any portion of this permit, the rest of the permit remains valid. [Rule 1421]
8. For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any applicable requirement in this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed. [Rule 1421]

B. RENEWAL REQUIREMENTS AND TERMS

1. The permittee shall submit a complete application for renewal of this permit to the Air Pollution Control Officer no later than April 12, 2009 and no earlier than October 12, 2008. [Rule 1410]
2. If an administratively complete application for renewal of this permit has been submitted to the Air Pollution Control Officer within the dates specified in Section I.B.1., the terms and conditions of this permit shall remain in effect and the source may continue operations under these terms and conditions after April 12, 2010 until the Air Pollution Control Officer issues or denies the permit renewal. [Rule 1410]

C. MONITORING, RECORDKEEPING & REPORTING REQUIREMENTS

1. The permittee shall provide the District access to the facility and all equipment subject to this permit, and access to all required records pursuant to California Health and Safety Code Section 41510. When requested by the District, records that are maintained in an electronic format, including, but not limited to, those records also maintained as hardcopy, shall be provided in an electronic format acceptable to the District. [Rule 1421]
2. The permittee shall maintain all records required by this permit including any calibration, maintenance, and other supporting information and copies of all reports required by this permit for at least five years from their date of creation. Such records shall be maintained on-site for a minimum of five years. [Rule 1421]
3. The permittee shall submit monitoring and recordkeeping summary reports and all other monitoring and recordkeeping reports required by this permit to the District every six months, unless a shorter time frame is required by a specific permit condition contained in Section III of this permit. Unless other dates are specified in Section III, reports for data required to be collected from January 1 through June 30, shall be submitted no later than September 1 of the calendar year, and reports for data required to be collected from July 1 through December 31, shall be submitted no later than March 1 of the following calendar year. The report for the final six months of the year may be consolidated with the annual compliance certification required below. All instances of noncompliance from federally enforceable applicable requirements shall be clearly identified in these reports. (Timely completion of District Certification Reports Form J1 and Form J2, if applicable, and all indicated attachments, fulfills the requirements of this condition.) [Rule 1421]
4. Each calendar year, the permittee shall submit to the District and to the federal EPA an annual compliance certification, in a manner and form approved in writing by the District, for the previous calendar year that includes the identification of each applicable term or condition of the final permit for which the compliance status is being certified, the compliance status and whether the facility was in continuous or intermittent compliance during the previous calendar year, identification of the method used to determine compliance during the previous calendar year, and any other information required by the District to determine the compliance status. The annual compliance certification for a calendar year shall be submitted no later than March 1 of the following calendar year and may be consolidated with the monitoring and recordkeeping report for the last six months of the year for which compliance is certified. (Timely completion of District Certification Reports Form J1 and Form J2, if applicable, and all indicated attachments, fulfills the requirements of this condition.) [Rule 1421]
5. Any report submitted to the District or federal EPA pursuant to this permit to comply with a federally enforceable applicable requirement, shall be certified by a responsible official stating that, based on information and belief formed after reasonable inquiry, the report is true, accurate and complete. [Rule 1421]

6. The permittee shall make any trade secret designations of records, documents, or other information submitted to the District or federal EPA in accordance with District Rule 176. [Rule 176]
7. The permittee shall report all deviations from any and all federally enforceable permit terms and conditions including: (a) breakdowns, whether or not they result in excess emissions, (b) deviations that result in excess emissions of any regulated air pollutant, and (c) deviations from monitoring, recordkeeping, reporting and other administrative requirements that do not result in excess emissions. For deviations that result from breakdowns under District Rule 98, the permittee shall report the breakdown within two hours of detection of the breakdown and provide a follow-up written report after corrective actions have been taken. For deviations not due to a breakdown but which result in excess emissions, the permittee shall report the deviation within ten calendar days of detection. For all other deviations where no specific time frame for reporting a deviation applies, the permittee shall report the deviation at the time of the next semi-annual monitoring summary or annual compliance certification, whichever occurs first. If an underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, then the criteria for the applicable requirement shall apply. The report must include the probable cause of such deviations and any corrective actions or preventive measures taken. [Rule 1421]

D. GENERAL PERMIT REQUIREMENTS

1. The permittee shall comply with all terms and conditions of this permit. This permit consists of this document and Appendixes A, B and C. Any noncompliance with the federally applicable terms and conditions of this permit shall constitute a violation of the federal Clean Air Act. Noncompliance with any federally applicable permit term or condition of this permit is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. Noncompliance with any District permit term or condition is grounds for enforcement action by the District. [Rule 1421]
2. Upon a written request by the District, the permittee shall furnish to the District any information needed to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit; any information required to determine compliance with this permit; or any records required to be maintained pursuant to this permit. Such information shall be provided within a reasonable time, as specified within the District's written request. [Rule 1421]
3. The permittee shall pay annual fees in accordance with District Rule 40. [Rule 1421]
4. The permittee shall provide access, facilities, utilities and any necessary safety equipment for source testing and inspection upon request of the District. [Rule 19]
5. This permit shall be maintained on-site at all times and be made available to the District upon request. [Rule 1410]
6. The Rule Reference Table provided in Appendix B shall be used to determine whether a cited rule is a federally and District enforceable requirement or a District only

enforceable requirement. Any new or revised District rule shall not be considered federally enforceable until the rule is approved by EPA into the SIP. In cases where SIP approval is pending for a revised District rule, the rule citation shall refer to both the current SIP approved rule and the revised District rule. [Rule 1421]

SECTION II. FACILITY-WIDE REQUIREMENTS

A. GENERAL PERMIT PROGRAM APPLICABLE REQUIREMENTS

The permittee shall comply with the applicable requirements specified in the Rules and Regulations cited below, unless specifically exempted by the same Rule or Regulation.

Regulation	Rule Citation	Title
SDCAPCD Reg. II	10	Permits Required
SDCAPCD Reg. II	19	Provision of Sampling & Testing Facilities
SDCAPCD Reg. II	19.3	Emission Information
SDCAPCD Reg. II	21	Permit Conditions
SDCAPCD Reg. IV	60	Circumvention
SDCAPCD Reg. V	98	Breakdown Conditions: Emergency Variance
SDCAPCD Reg. VIII	131	Stationary Source Curtailment Plan

B. GENERAL PROHIBITORY APPLICABLE REQUIREMENTS

The permittee shall comply with the generally applicable requirements specified in the Rules and Regulations cited below, unless specifically exempted by the same Rule or Regulation. These generally applicable requirements apply on a facility-wide basis to all permitted equipment, registered equipment, and insignificant activities. In cases where a requirement, in addition to being generally applicable, is also specifically applicable to one or more permitted emission units, the requirement is also included in Section III.A. of this permit.

Regulation	Rule Citation	Title
SDCAPCD Reg. IV	50	Visible Emissions
SDCAPCD Reg. IV	51	Nuisance
SDCAPCD Reg. IV	67.0	Architectural Coatings
SDCAPCD Reg. IV	67.17	Storage of Materials Containing VOC
SDCAPCD Reg. IV	71	Abrasive Blasting
SDCAPCD Reg. VI	101	Burning Control
SDCAPCD Reg. XI	Subpart M, 361.145	Standard for Demolition and Renovation
SDCAPCD Reg. XI	Subpart M, 361.150	Standard for Waste Disposal for Manufacturing, Fabricating, Demolition, Renovation, and Spraying Operations
40 CFR Part 82	Subpart F	Recycling and Emissions Reduction

C. PERMIT SHIELDS

The permittee is granted a permit shield from enforcement action for the rules cited in the table below based on the District's determination that such rules are not applicable to any

operation at this facility. Permittee shall not perform any operation or activity subject to the rules cited in the table below.

Regulation	Rule Citation	Title
SDCAPCD Reg. IV	52	Particulate Matter
SDCAPCD Reg. IV	54	Dust and Fumes
SDCAPCD Reg. VIII	132	Traffic Abatement Plan

D. TITLE IV (ACID RAIN) REQUIREMENTS

1. The permittee shall not exceed any emission allowances that are lawfully held under Title IV of the federal Clean Air Act or the regulations promulgated thereunder. [1421]
2. The permittee shall install, operate, and maintain equipment for the continuous monitoring of O₂ and NO_x on the common stack in accordance with 40 CFR Parts 72 and 75. [40 CFR Parts 72 and 75]
3. The permittee shall prepare and maintain onsite a written Quality Assurance program in accordance with 40 CFR Part 75, Appendix B, for the continuous monitoring of NO_x emissions from the common stack. The components of the Quality Assurance program include, but are not limited to, procedures for daily calibration testing, quarterly linearity testing, record keeping and reporting implementation, and relative accuracy testing. [40 CFR Parts 72 and 75]
4. The permit holder shall monitor SO₂ emissions in accordance with 40 CFR Part 72 and 75. [40 CFR Parts 72 and 75]
5. The permit holder shall submit quarterly Electronic Data Reports (EDRs) to EPA for the emissions from the common stack in accordance with 40 CFR Part 75. These reports must be submitted within 30 days following the end of each calendar quarter and shall include all information required in § 75.64. (40 CFR Part 75)
6. The permittee is issued allowances in accordance with the Acid Rain Permit in Appendix D.

E. ADDITIONAL TERMS AND REQUIREMENTS

1. Any emission unit described in this Title V operating permit as being fired on natural gas, shall only use Public Utility Commission (PUC)-quality natural gas, unless the emission unit permit specifies otherwise. Permittee shall provide records of the natural gas sulfur content to the District upon request. [Rule(s) 53, 62]
2. Records required by this permit shall be considered as being maintained "on-site" if records for the previous 12-month period are available at the stationary source. [Rule 21]
3. The permittee shall file quarterly emission reports in accordance with Rule 19.2. [Rule 19.2]

SECTION III. EMISSION UNIT REQUIREMENTS

A. DISTRICT PERMITTED EMISSION UNITS

The District Permits listed below and attached in Appendix A, including all terms and conditions of such permits, constitute the emission unit portion of this Title V Operating Permit document.

Permit Number	Source Category
976039	Turbine

B. REGISTERED AND LEASED EMISSION UNITS

The permittee shall comply with the source specific applicable requirements specified in the Rules and Regulations cited below for all registered and leased emission units, unless specifically exempted by the same Rule or Regulations.

Regulation	Rule Citation	Title
SDCAPCD Reg. IV	62	Sulfur Content of Fuels
SDCAPCD Reg. IV	69.4	Stationary Reciprocating Internal Combustion Engines

C. INSIGNIFICANT EMISSION UNITS AND ACTIVITIES

The permittee shall comply with the source specific applicable requirements specified in the Rules and Regulations cited below for all emission units not required to obtain a District Permit to Operate pursuant to Rule 11, unless specifically exempted by the same Rule or Regulations.

Regulation	Rule Citation	Title
SDCAPCD Reg. IV	62	Sulfur Content of Fuels
SDCAPCD Reg. IV	66	Organic Solvents

SECTION IV. VARIANCE PROCEDURES

VARIANCE PROCEDURES

The permittee may seek relief from District enforcement action in the event of a breakdown in accordance with District Rule 98. Notwithstanding the foregoing, the granting by the District of breakdown relief or the issuance by the Hearing Board of a variance does not provide relief from federal enforcement or citizen's suits. [Rule 98]

SECTION V. APPENDICES

APPENDIX A: DISTRICT PERMITS (Attached)

Permit Number	Source Category
976039	Turbine

PO: 976038 RENEWAL
RENEWAL
ID: 7112 A

DBA: MMC ESCONDIDO LLC
DBA:
LOC: DONELLE GRIFFIN
LOC:
1968 DON LEE PL
ESCONDIDO CA 92029-1120
TEL: (858) 354-4995
TEL:

MAIL: MMC ENERGY NORTH AMERICA LLC
MAIL:
26 BROADWAY #907
NEW YORK NY 10004-0000

EQUIPMENT:
EQUIPMENT:

GAS TURBINE (TWIN PACK): PRATT & WHITNEY, MODEL FT4/GG4, 44 MW,
688 MMBTU/HR HEAT INPUT, NATURAL GAS FIRED, SIMPLE CYCLE, S/N 675454 AND
675401, WITH DRY LOW-NOX COMBUSTORS, A SELECTIVE CATALYTIC REDUCTION (SCR)
SYSTEM INCLUDING AN AUTOMATIC AMMONIA INJECTION CONTROL SYSTEM, AN
OXIDATION CATALYST, A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS) AND A
DATA ACQUISITION AND RECORDING SYSTEM. (976038 ALC 08/03)

(977259 ALC 08/03)(983128 5/05)
FS: 20F01 92F01 92I01 92J01
FS:

28320

THE PERMITTEE SHALL COMPLY WITH THE FOLLOWING APPLICABLE REQUIREMENTS:
40 CFR PARTS 60, 72 AND 73.

28321

PROVIDED THE EQUIPMENT SUBJECT TO THIS PERMIT IS OPERATED IN COMPLIANCE
WITH ALL OF THE SECTION (A) CONDITIONS LISTED BELOW AS THEY EXIST ON THE
DATE OF ISSUANCE OF THIS PERMIT, A PERMIT SHIELD IS GRANTED FROM
ENFORCEMENT ACTION FOR THE FOLLOWING APPLICABLE REQUIREMENTS: RULE 53,
RULE 62, RULE 68, RULE 69.3, 40 CFR PART 60 SUBPART GG, AND 40 CFR PART 75.

26505

WHEN OPERATING ON NATURAL GAS, THE TURBINE SHALL BE FIRED ON PUBLIC
UTILITY COMMISSION (PUC) QUALITY NATURAL GAS ONLY. THE PERMITTEE SHALL
MAINTAIN, ON SITE, QUARTERLY RECORDS OF THE NATURAL GAS SULFUR CONTENT
(GRAINS OF SULFUR COMPOUNDS PER 100 DSCF OF NATURAL GAS) AND THE HIGHER AND
LOWER HEATING VALUES (BTU/SCF) OF THE NATURAL GAS; AND PROVIDE SUCH RECORDS
TO DISTRICT PERSONNEL UPON REQUEST.

25581

SUFFICIENT SO2 TRADING ALLOWANCES WILL BE PURCHASED BY THE PERMITTEE TO
OFFSET POTENTIAL SO2 EMISSIONS FOLLOWING THE REQUIREMENTS DESCRIBED IN 40
CFR 73. PERMITTEE SHALL HOLD ALLOWANCES, AS OF THE ALLOWANCES TRANSFER
DEADLINE, IN THE FACILITY'S (DEPARTMENT OF ENERGY'S OFFICE OF REGULATORY
INFORMATION SYSTEM "ORIS" CODE FOR EACH UNIT, THE TWIN PAC IS A "UNIT")
COMPLIANCE SUB-ACCOUNT (AFTER DEDUCTIONS UNDER 40 CFR 73.34 (C)) NOT LESS

THAN THE TOTAL ANNUAL EMISSIONS OF SULFUR DIOXIDE FOR THE PREVIOUS CALENDAR YEAR FROM THE UNIT.

26595

ALL RECORDS REQUIRED BY THIS PERMIT SHALL BE MAINTAINED ON SITE FOR A MINIMUM OF FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. IF THIS SITE BECOMES UNMANNED, THE PERMITTEE SHALL SUBMIT AN ALTERNATE SITE FOR THE MAINTENANCE OF RECORDS TO THE DISTRICT FOR APPROVAL.

26596

EXCEPT DURING STARTUPS AND SHUTDOWNS, THE AIR POLLUTION CONTROL SYSTEM, INCLUDING THE AUTOMATIC AMMONIA INJECTION SYSTEM SERVING THE SCR, SHALL BE IN OPERATION IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AT ALL TIMES WHEN THE TURBINE IS IN OPERATION. ALL MANUFACTURER'S SPECIFICATIONS SHALL BE MAINTAINED ON SITE AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.

26597

IN THE EVENT OF A BREAKDOWN IN AN AUTOMATIC AMMONIA INJECTION CONTROL SYSTEM, THE TURBINE SHALL BE SHUT DOWN OR A TRAINED OPERATOR SHALL OPERATE THE AMMONIA INJECTION CONTROL SYSTEM MANUALLY AND THE BREAKDOWN SHALL BE REPORTED TO THE DISTRICT COMPLIANCE DIVISION PURSUANT TO RULE 98(B)(1) AND 98(E).

26598

AN APPLICATION FOR MODIFICATION OF DISTRICT PERMITS FOR THIS EQUIPMENT SHALL BE REQUIRED FOR ANY PROPOSED PHYSICAL OR OPERATIONAL MODIFICATION TO THE EQUIPMENT DESCRIBED HEREIN, INCLUDING A MODIFICATION TO CONVERT THIS SIMPLE CYCLE UNIT TO A COMBINED CYCLE UNIT. APPLICABLE NEW SOURCE REVIEW REQUIREMENTS FOR THE PROPOSED EQUIPMENT MODIFICATION SHALL BE RE-EVALUATED AT THAT TIME.

26599

FOR THE PURPOSES OF THIS PERMIT TO OPERATE, STARTUP CONDITIONS SHALL BE DEFINED AS THE TIME WHEN FUEL FLOW BEGINS UNTIL THE TIME THAT THE UNIT COMPLIES WITH THE EMISSION LIMITS SPECIFIED IN THIS PERMIT TO OPERATE BUT IN NO CASE EXCEEDING 60 MINUTES PER OCCURRENCE. SHUTDOWN CONDITIONS SHALL BE DEFINED AS THE TIME PRECEDING THE MOMENT AT WHICH FUEL FLOW CEASES AND DURING WHICH THE UNIT DOES NOT COMPLY WITH THE EMISSION LIMITS SPECIFIED IN THIS PERMIT TO OPERATE BUT IN NO CASE EXCEEDING 30 MINUTES PER OCCURRENCE. THE DATA ACQUISITION SYSTEM (DAS), AS REQUIRED BY 40 CFR 75, SHALL RECORD THESE EVENTS.

26600

TOTAL COMBINED OXIDES OF NITROGEN (NOX) EMISSIONS FROM ALL TURBINES, AND ANY OTHER EMISSION UNITS AT THIS STATIONARY SOURCE, SHALL NOT EXCEED THE MAJOR SOURCE THRESHOLD OF 50 TONS PER CALENDAR YEAR. THE DAILY NOX MASS EMISSIONS FROM EACH TURBINE SHALL BE RECORDED DAILY. THE AGGREGATE NOX MASS EMISSIONS FROM ALL TURBINES FOR EACH CALENDAR MONTH, AND FOR EACH ROLLING 12-MONTH PERIOD, SHALL BE CALCULATED AND RECORDED BY THE 15TH CALENDAR DAY OF THE FOLLOWING MONTH. IN THE EVENT THAT AN ANNUAL MAJOR STATIONARY SOURCE THRESHOLD IS PROJECTED TO BE TRIGGERED, THE PERMITTEE SHALL SUBMIT A COMPLETE APPLICATION TO MODIFY THIS PERMIT AT LEAST 6 MONTHS PRIOR TO THE PROJECTED DATE OF EXCEEDANCE DEMONSTRATING HOW COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS WILL BE ACHIEVED.

26601

THE EMISSIONS OF OXIDES OF NITROGEN (NOX), CALCULATED AS NITROGEN DIOXIDE, FROM THE TURBINE EXHAUST STACK SHALL NOT EXCEED 9 PARTS PER MILLION VOLUME ON A DRY BASIS (PPMVD) CORRECTED TO 15% OXYGEN AND AVERAGED OVER EACH CLOCK HOUR AND SHALL NOT EXCEED 5 PPMVD CORRECTED TO 15% OXYGEN

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AND AVERAGED OVER EACH CONTINUOUS ROLLING 3-HOUR PERIOD. COMPLIANCE WITH THESE LIMITS SHALL BE DEMONSTRATED CONTINUOUSLY BASED ON CEMS DATA AND SOURCE TESTING, CALCULATED AS THE AVERAGE OF THREE SUBTEST. THESE LIMITS SHALL NOT APPLY DURING STARTUP AND SHUTDOWN CONDITIONS.

26603

TOTAL COMBINED CARBON MONOXIDE (CO) EMISSIONS FROM ALL TURBINES, AND ANY OTHER EMISSION UNITS, AT THIS STATIONARY SOURCE SHALL NOT EXCEED THE PREVENTION OF SIGNIFICANT DETERIORATION (PSD) THRESHOLD OF 250 TONS PER CALENDAR YEAR. THE DAILY CO MASS EMISSIONS FROM EACH UNIT SHALL BE RECORDED DAILY. THE AGGREGATE CO MASS EMISSIONS FROM ALL TURBINES FOR EACH CALENDAR MONTH, AND FOR EACH ROLLING 12-MONTH PERIOD, SHALL BE CALCULATED AND RECORDED BY THE 15TH CALENDAR DAY OF THE FOLLOWING MONTH. IN THE EVENT THAT THE ANNUAL PSD STATIONARY SOURCE THRESHOLD IS PROJECTED TO BE TRIGGERED, THE PERMITTEE SHALL SUBMIT A COMPLETE APPLICATION TO MODIFY THIS PERMIT AT LEAST 6 MONTHS PRIOR TO THE PROJECTED DATE OF EXCEEDANCE DEMONSTRATING HOW COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS WILL BE ACHIEVED.

26604

EMISSIONS OF CARBON MONOXIDE (CO) FROM THE TURBINE EXHAUST STACK SHALL NOT EXCEED 70 PARTS PER MILLION VOLUME ON A DRY BASIS (PPMVD) CORRECTED TO 15% OXYGEN AND AVERAGED OVER EACH ROLLING THREE-HOUR PERIOD. COMPLIANCE WITH THIS LIMIT SHALL BE DEMONSTRATED CONTINUOUSLY BASED ON CEMS DATA AND BY SOURCE TESTING, CALCULATED AS THE AVERAGE OF THREE SUBTESTS. THIS LIMIT SHALL NOT APPLY DURING STARTUP AND SHUTDOWN CONDITIONS.

26605

EMISSIONS OF VOLATILE ORGANIC COMPOUNDS (VOCs), CALCULATED AS METHANE, FROM THE TURBINE EXHAUST STACK SHALL NOT EXCEED 2 PARTS PER MILLION VOLUME ON A DRY BASIS (PPMVD) CORRECTED TO 15% OXYGEN. COMPLIANCE WITH THIS LIMIT SHALL BE DEMONSTRATED BY SOURCE TESTING, CALCULATED AS THE AVERAGE OF THREE SUBTESTS. THIS LIMIT SHALL NOT APPLY DURING STARTUP AND SHUTDOWN CONDITIONS.

26606

AMMONIA EMISSIONS SHALL NOT EXCEED 10 PARTS PER MILLION VOLUME ON A DRY BASIS (PPMVD) CORRECTED TO 15% OXYGEN. COMPLIANCE WITH THIS LIMIT SHALL BE DEMONSTRATED BY SOURCE TESTING, CALCULATED AS THE AVERAGE OF THREE SUBTESTS.

26607

OPERATING LOG OR DATA ACQUISITION SYSTEM (DAS) RECORDS SHALL BE MAINTAINED EITHER ON SITE OR AT A DISTRICT-APPROVED ALTERNATE LOCATION TO RECORD ACTUAL TIMES AND DURATIONS OF ALL STARTUPS AND SHUTDOWNS, QUANTITY OF FUEL USED (MONTHLY AND ANNUAL), HOURS OF DAILY OPERATION, AND TOTAL CUMULATIVE HOURS OF OPERATION DURING EACH CALENDAR YEAR.

26608

THE OXIDES OF NITROGEN (NOX) AND OXYGEN (O2) CEMS SHALL BE CERTIFIED AND MAINTAINED IN ACCORDANCE WITH APPLICABLE FEDERAL REGULATIONS INCLUDING THE REQUIREMENTS OF SECTIONS 75.10 AND 75.12 OF TITLE 40, CODE OF FEDERAL REGULATIONS PART 75 (40 CFR 75), THE PERFORMANCE SPECIFICATIONS OF APPENDIX

A OF 40 CFR 75, THE QUALITY ASSURANCE PROCEDURES OF APPENDIX B OF 40 CFR 75 AND THE CEMS PROTOCOL APPROVED BY THE DISTRICT. THE CARBON MONOXIDE (CO) CEMS SHALL BE CERTIFIED AND MAINTAINED IN ACCORDANCE WITH 40 CFR 60, APPENDICES B AND F, UNLESS OTHERWISE SPECIFIED IN THIS PERMIT, AND THE CEMS PROTOCOL APPROVED BY THE DISTRICT.

24368

THE CEMS SHALL BE MAINTAINED AND OPERATED, AND REPORTS SUBMITTED, IN ACCORDANCE WITH THE REQUIREMENTS OF RULE 19.2 SECTIONS (D), (E), (F)(1), (F)(2), (F)(3), (F)(4) AND (F)(5), AND A CEMS PROTOCOL APPROVED BY THE AIR POLLUTION CONTROL OFFICER.

26609

THE DISTRICT SHALL BE NOTIFIED AT LEAST TWO WEEKS PRIOR TO ANY CHANGES MADE IN CEMS SOFTWARE THAT AFFECT THE MEASUREMENT, CALCULATION OR CORRECTION OF DATA DISPLAYED AND/OR RECORDED BY THE CEMS.

27992

THE TURBINE SHALL BE EQUIPPED WITH CONTINUOUS MONITORS TO MEASURE, CALCULATE AND RECORD THE FOLLOWING OPERATIONAL CHARACTERISTICS:

- A. HOURS OF OPERATION (HOURS),
- B. NATURAL GAS FLOW RATE (KSCFH),
- C. EXHAUST GAS TEMPERATURE (DEGRESS FAHRENHEIT)
- D. AMMONIA INJECTION RATE (LBS/HR),
- E. RATIO OF AMMONIA INJECTION RATE TO OUTLET NOX MASS EMISSION RATE (LBS NH3 PER LBS NOX), AND
- F. POWER OUTPUT (MW).

THESE MONITORS SHALL BE CALIBRATED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED PROCEDURES AND A PROTOCOL APPROVED BY THE DISTRICT. CALIBRATING RECORDS FOR THE CONTINUOUS MONITORS SHALL BE MAINTAINED ON SITE AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.

24615

NON-RESETTABLE TOTALIZING METERS WITH AN ACCURACY OF 5% SHALL BE MAINTAINED IN THE FUEL LINE TO MEASURE THE VOLUMETRIC FLOW RATE CORRECTED FOR TEMPERATURE AND PRESSURE OF THE FUEL. ANY CORRECTION FACTORS SHALL BE

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MAINTAINED ON SITE AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.

22011

THE AMMONIA INJECTION FLOW RATE SHALL BE CONTINUOUSLY MONITORED, RECORDED AND CONTROLLED. THE FLOWRATE DEVICE SHALL BE CALIBRATED TO AN ACCURACY OF AT LEAST 5% ON AN ANNUAL BASIS. RECORDS OF AMMONIA INJECTION RATE (IN POUNDS PER HOUR) AND FLOW RATE DEVICE CALIBRATION SHALL BE MAINTAINED AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.

27286

A CONTINUOUS EMISSION MONITORING SYSTEM (CEMS) SHALL BE INSTALLED AND PROPERLY MAINTAINED AND CALIBRATED IN ACCORDANCE WITH AN APPROVED CEMS PROTOCOL TO MEASURE, CALCULATE AND RECORD THE FOLLOWING, IN ACCORDANCE WITH THE APPROVED CEMS PROTOCOL:

- A. HOURLY AVERAGE CONCENTRATION OF OXIDES OF NITROGEN (NOX) CORRECTED TO 15% OXYGEN, IN PARTS PER MILLION (PPM);
- B. HOURLY AVERAGE CONCENTRATION OF CARBON MONOXIDE (CO) CORRECTED TO 15% OXYGEN, IN PARTS PER MILLION (PPM);
- C. PERCENT OXYGEN (O₂) IN THE EXHAUST GAS (%);
- D. AVERAGE CONCENTRATION OF OXIDES OF NITROGEN (NOX) FOR EACH CONTINUOUS ROLLING 3-HOUR PERIOD, IN PARTS PER MILLION (PPM);
- E. DAILY MASS EMISSIONS OF OXIDES OF NITROGEN (NOX), IN POUNDS;
- F. MONTHLY MASS EMISSIONS OF OXIDES OF NITROGEN (NOX), IN POUNDS;
- G. ANNUAL MASS EMISSIONS OF OXIDES OF NITROGEN (NOX), IN TONS;
- H. DAILY MASS EMISSION OF CARBON MONOXIDE (CO), IN POUNDS;

27287

- I. MONTHLY MASS EMISSION OF CARBON MONOXIDE (CO), IN POUNDS; AND
- J. ANNUAL MASS EMISSION OF CARBON MONOXIDE (CO), IN TONS.

THE CEMS SHALL BE OPERATED IN ACCORDANCE WITH THE APPROVED CEMS MONITORING PROTOCOL AT ALL TIMES WHEN THE TURBINE IS IN OPERATION. A COPY OF THE CEMS MONITORING PROTOCOL SHALL BE MAINTAINED ON SITE AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.

27288

WHEN THE CEMS IS NOT RECORDING DATA AND THE TURBINE IS OPERATING, HOURLY NOX EMISSIONS FOR THE ANNUAL EMISSION CALCULATIONS SHALL BE DETERMINED IN ACCORDANCE WITH 40 CFR 75 SUBPART C. ADDITIONALLY, HOURLY CO EMISSIONS FOR THE ANNUAL EMISSION CALCULATIONS SHALL BE DETERMINED USING THE HOURLY EMISSION RATES RECORDED BY THE CEMS DURING THE MOST RECENT HOURS IN WHICH THE TURBINE OPERATED 3 CONTINUOUS HOURS AT NO LESS THAN 80% OF FULL POWER RATING. ALTERNATE HOURLY EMISSION RATES TO BE USED SHALL BE CO EMISSION FACTORS TO BE DETERMINED FROM COMPLIANCE SOURCE TEST EMISSIONS AND FUEL CONSUMPTION DATA, IN TERMS OF POUNDS PER HOUR OF CO FOR THE GAS TURBINE. EMISSION CALCULATIONS USED TO DETERMINE ALTERNATE HOURLY EMISSION RATES SHALL BE REVIEWED AND APPROVED BY THE DISTRICT, IN WRITING, BEFORE THE ALTERNATIVE HOURLY EMISSION RATES ARE INCORPORATED WITH THE CEMS EMISSION DATA.

28009

ANY VIOLATION OF ANY EMISSION STANDARD AS INDICATED BY THE CEMS SHALL BE REPORTED TO THE DISTRICT'S COMPLIANCE DIVISION WITHIN 96 HOURS AFTER SUCH

OCCURENCE.

26535

A RELATIVE ACCURACY TEST AUDIT (RATA) AND ALL OTHER REQUIRED CERTIFICATION TESTS SHALL BE PERFORMED AND COMPLETED ON THE CEMS IN ACCORDANCE WITH 40 CFR PART 75 APPENDIX A AND B PERFORMANCE SPECIFICATIONS. AT LEAST 21 DAY PRIOR TO THE TEST DATE, THE PERMITTEE SHALL SUBMIT A TEST PROTOCOL TO THE DISTRICT FOR APPROVAL. ADDITIONALLY, THE DISTRICT SHALL BE NOTIFIED A MINIMUM OF 21 DAYS PRIOR TO THE TEST SO THAT OBSERVERS MAY BE PRESENT. WITHIN 30 DAYS OF COMPLETION OF THIS TEST, A WRITTEN TEST REPORT SHALL BE SUBMITTED TO THE DISTRICT FOR APPROVAL.

27993

THIS UNIT SHALL BE SOURCE TESTED TO DEMONSTRATE COMPLIANCE WITH THE NOX, CO, VOC, AND AMMONIA EMISSION STANDARDS OF THIS PERMIT, USING DISTRICT APPROVED METHODS. THE SOURCE TEST AND THE NOX AND CO RATA TESTS SHALL BE COMPLETED ONCE EVERY FOUR SUCCESSIVE QA OPERATING QUARTERS (AS DEFINED BY 40 CFR 72.2, AT LEAST 168 OPERATING HOURS). IF THE SOURCE TEST OR RATA TEST HAS NOT BEEN COMPLETED BY THE END OF QA OPERATING QUARTER IN WHICH IT IS DUE, THEN THE TESTS SHALL BE COMPLETED WITHIN A 30-CALENDAR DAY GRACE PERIOD. THE GRACE PERIOD SHALL BEGIN WITH THE FIRST OPERATING HOUR FOLLOWING THE CALENDAR QUARTER IN WHICH THE SOURCE TEST OR RATA TEST WAS DUE.

28322

(CONTINUED FROM ABOVE) A TEST COMPLETED WITH IN A PERIOD OF 30 CALENDAR DAYS AFTER THE END OF A FOURTH SUCCESSIVE OPERATING QUARTER OR EIGHTH SUCCESSIVE CALENDAR QUARTER IN WHICH A TEST IS REQUIRED SHALL BE CONSIDERED TO HAVE OCCURRED IN THAT QUARTER.

27289

THE SOURCE TEST PROTOCOL SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:
A. MEASUREMENTS OF OUTLET OXIDES OF NITROGEN (NOX), CARBON MONOXIDE (CO), AND STACK GAS OXYGEN CONTENT (O2%) SHALL BE CONDUCTED IN ACCORDANCE WITH U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) METHOD 7E AND DISTRICT SOURCE TEST METHOD 100, OR THE AIR RESOURCES BOARD (ARB) TEST METHOD 100, AS APPROVED BY THE EPA;

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- B. MEASUREMENT OF OUTLET VOLATILE ORGANIC COMPOUNDS (VOC) EMISSIONS SHALL BE CONDUCTED IN ACCORDANCE WITH THE SAN DIEGO AIR POLLUTION CONTROL DISTRICT METHODS 25A AND/OR 18;
- C. MEASUREMENTS OF OUTLET AMMONIA SHALL BE CONDUCTED IN ACCORDANCE WITH BAY AREA AIR QUALITY MANAGEMENT DISTRICT (BAAQMD) TEST METHOD ST-1B;
- D. SOURCE TESTING SHALL BE PERFORMED AT NO LESS THAN 80% OF THE TURBINE RATED LOAD.

26538

WITHIN 30 DAYS AFTER COMPLETION OF THE RENEWAL SOURCE TEST OR RATA, A FINAL TEST REPORT SHALL BE SUBMITTED TO THE DISTRICT FOR REVIEW AND APPROVAL.

PO: 976039 RENEWAL
RENEWAL
ID: 7084 A

DBA: MMC CHULA VISTA LLC
DBA:
LOC: DONELLE GRIFFIN
LOC:
3497 MAIN ST
CHULA VISTA CA 91911-0000
TEL: (858) 354-4995
TEL:

MAIL: MMC ENERGY NORTH AMERICA LLC
MAIL:
26 BROADWAY #907
NEW YORK NY 10004-0000

EQUIPMENT:
EQUIPMENT:

GAS TURBINE (TWIN PACK): PRATT & WHITNEY, MODEL FT4/GG4, 44 MW,
688 MMBTU/HR HEAT INPUT, NATURAL GAS FIRED, SIMPLE CYCLE, S//N 675318 AND
675352, WITH DRY LOW-NOX COMBUSTORS, A SELECTIVE CATALYTIC REDUCTION (SCR)
SYSTEM INCLUDING AN AUTOMATIC AMMONIA INJECTION SYSTEM, A CONTINUOUS
EMISSIONS MONITORING SYSTEM (CEMS), AND A DATA ACQUISITION AND RECORDING
SYSTEM. (983127 5/05) (976039 ALC 08/03)

FS: 20F01 92F01 92I01 92J01
FS:

28320

THE PERMITTEE SHALL COMPLY WITH THE FOLLOWING APPLICABLE REQUIREMENTS:
40 CFR PARTS 60, 72 AND 73.

28321

PROVIDED THE EQUIPMENT SUBJECT TO THIS PERMIT IS OPERATED IN COMPLIANCE
WITH ALL OF THE SECTION (A) CONDITIONS LISTED BELOW AS THEY EXIST ON THE
DATE OF ISSUANCE OF THIS PERMIT, A PERMIT SHIELD IS GRANTED FROM
ENFORCEMENT ACTION FOR THE FOLLOWING APPLICABLE REQUIREMENTS: RULE 53,
RULE 62, RULE 68, RULE 69.3, 40 CFR PART 60 SUBPART GG, AND 40 CFR PART 75.

26505

WHEN OPERATING ON NATURAL GAS, THE TURBINE SHALL BE FIRED ON PUBLIC
UTILITY COMMISSION (PUC) QUALITY NATURAL GAS ONLY. THE PERMITTEE SHALL
MAINTAIN, ON SITE, QUARTERLY RECORDS OF THE NATURAL GAS SULFUR CONTENT
(GRAINS OF SULFUR COMPOUNDS PER 100 DSCF OF NATURAL GAS) AND THE HIGHER AND
LOWER HEATING VALUES (BTU/SCF) OF THE NATURAL GAS; AND PROVIDE SUCH RECORDS
TO DISTRICT PERSONNEL UPON REQUEST.

25581

SUFFICIENT SO2 TRADING ALLOWANCES WILL BE PURCHASED BY THE PERMITTEE TO
OFFSET POTENTIAL SO2 EMISSIONS FOLLOWING THE REQUIREMENTS DESCRIBED IN 40
CFR 73. PERMITTEE SHALL HOLD ALLOWANCES, AS OF THE ALLOWANCES TRANSFER
DEADLINE, IN THE FACILITY'S (DEPARTMENT OF ENERGY'S OFFICE OF REGULATORY
INFORMATION SYSTEM "ORIS" CODE FOR EACH UNIT, THE TWIN PAC IS A "UNIT")
COMPLIANCE SUB-ACCOUNT (AFTER DEDUCTIONS UNDER 40 CFR 73.34 (C)) NOT LESS
THAN THE TOTAL ANNUAL EMISSIONS OF SULFUR DIOXIDE FOR THE PREVIOUS CALENDAR

YEAR FROM THE UNIT.

26595

ALL RECORDS REQUIRED BY THIS PERMIT SHALL BE MAINTAINED ON SITE FOR A MINIMUM OF FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. IF THIS SITE BECOMES UNMANNED, THE PERMITTEE SHALL SUBMIT AN ALTERNATE SITE FOR THE MAINTENANCE OF RECORDS TO THE DISTRICT FOR APPROVAL.

26596

EXCEPT DURING STARTUPS AND SHUTDOWNS, THE AIR POLLUTION CONTROL SYSTEM, INCLUDING THE AUTOMATIC AMMONIA INJECTION SYSTEM SERVING THE SCR, SHALL BE IN OPERATION IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AT ALL TIMES WHEN THE TURBINE IS IN OPERATION. ALL MANUFACTURER'S SPECIFICATIONS SHALL BE MAINTAINED ON SITE AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.

26597

IN THE EVENT OF A BREAKDOWN IN AN AUTOMATIC AMMONIA INJECTION CONTROL SYSTEM, THE TURBINE SHALL BE SHUT DOWN OR A TRAINED OPERATOR SHALL OPERATE THE AMMONIA INJECTION CONTROL SYSTEM MANUALLY AND THE BREAKDOWN SHALL BE REPORTED TO THE DISTRICT COMPLIANCE DIVISION PURSUANT TO RULE 98(B)(1) AND 98(E).

26598

AN APPLICATION FOR MODIFICATION OF DISTRICT PERMITS FOR THIS EQUIPMENT SHALL BE REQUIRED FOR ANY PROPOSED PHYSICAL OR OPERATIONAL MODIFICATION TO THE EQUIPMENT DESCRIBED HEREIN, INCLUDING A MODIFICATION TO CONVERT THIS SIMPLE CYCLE UNIT TO A COMBINED CYCLE UNIT. APPLICABLE NEW SOURCE REVIEW REQUIREMENTS FOR THE PROPOSED EQUIPMENT MODIFICATION SHALL BE RE-EVALUATED AT THAT TIME.

26599

FOR THE PURPOSES OF THIS PERMIT TO OPERATE, STARTUP CONDITIONS SHALL BE DEFINED AS THE TIME WHEN FUEL FLOW BEGINS UNTIL THE TIME THAT THE UNIT COMPLIES WITH THE EMISSION LIMITS SPECIFIED IN THIS PERMIT TO OPERATE BUT IN NO CASE EXCEEDING 60 MINUTES PER OCCURRENCE. SHUTDOWN CONDITIONS SHALL BE DEFINED AS THE TIME PRECEDING THE MOMENT AT WHICH FUEL FLOW CEASES AND DURING WHICH THE UNIT DOES NOT COMPLY WITH THE EMISSION LIMITS SPECIFIED IN THIS PERMIT TO OPERATE BUT IN NO CASE EXCEEDING 30 MINUTES PER OCCURRENCE. THE DATA ACQUISITION SYSTEM (DAS), AS REQUIRED BY 40 CFR 75, SHALL RECORD THESE EVENTS.

26600

TOTAL COMBINED OXIDES OF NITROGEN (NOX) EMISSIONS FROM ALL TURBINES, AND ANY OTHER EMISSION UNITS AT THIS STATIONARY SOURCE, SHALL NOT EXCEED THE MAJOR SOURCE THRESHOLD OF 50 TONS PER CALENDAR YEAR. THE DAILY NOX MASS EMISSIONS FROM EACH TURBINE SHALL BE RECORDED DAILY. THE AGGREGATE NOX MASS EMISSIONS FROM ALL TURBINES FOR EACH CALENDAR MONTH, AND FOR EACH ROLLING 12-MONTH PERIOD, SHALL BE CALCULATED AND RECORDED BY THE 15TH CALENDAR DAY OF THE FOLLOWING MONTH. IN THE EVENT THAT AN ANNUAL MAJOR STATIONARY SOURCE THRESHOLD IS PROJECTED TO BE TRIGGERED, THE PERMITTEE SHALL SUBMIT A COMPLETE APPLICATION TO MODIFY THIS PERMIT AT LEAST 6 MONTHS PRIOR TO THE PROJECTED DATE OF EXCEEDANCE DEMONSTRATING HOW COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS WILL BE ACHIEVED.

26601

THE EMISSIONS OF OXIDES OF NITROGEN (NOX), CALCULATED AS NITROGEN

DIOXIDE, FROM THE TURBINE EXHAUST STACK SHALL NOT EXCEED 9 PARTS PER MILLION VOLUME ON A DRY BASIS (PPMVD) CORRECTED TO 15% OXYGEN AND AVERAGED OVER EACH CLOCK HOUR AND SHALL NOT EXCEED 5 PPMVD CORRECTED TO 15% OXYGEN AND AVERAGED OVER EACH CONTINUOUS ROLLING 3-HOUR PERIOD. COMPLIANCE WITH

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26601

THESE LIMITS SHALL BE DEMONSTRATED CONTINUOUSLY BASED ON CEMS DATA AND SOURCE TESTING, CALCULATED AS THE AVERAGE OF THREE SUBTEST. THESE LIMITS SHALL NOT APPLY DURING STARTUP AND SHUTDOWN CONDITIONS.

26603

TOTAL COMBINED CARBON MONOXIDE (CO) EMISSIONS FROM ALL TURBINES, AND ANY OTHER EMISSION UNITS, AT THIS STATIONARY SOURCE SHALL NOT EXCEED THE PREVENTION OF SIGNIFICANT DETERIORATION (PSD) THRESHOLD OF 250 TONS PER CALENDAR YEAR. THE DAILY CO MASS EMISSIONS FROM EACH UNIT SHALL BE RECORDED DAILY. THE AGGREGATE CO MASS EMISSIONS FROM ALL TURBINES FOR EACH CALENDAR MONTH, AND FOR EACH ROLLING 12-MONTH PERIOD, SHALL BE CALCULATED AND RECORDED BY THE 15TH CALENDAR DAY OF THE FOLLOWING MONTH. IN THE EVENT THAT THE ANNUAL PSD STATIONARY SOURCE THRESHOLD IS PROJECTED TO BE TRIGGERED, THE PERMITTEE SHALL SUBMIT A COMPLETE APPLICATION TO MODIFY THIS PERMIT AT LEAST 6 MONTHS PRIOR TO THE PROJECTED DATE OF EXCEEDANCE DEMONSTRATING HOW COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS WILL BE ACHIEVED.

26604

EMISSIONS OF CARBON MONOXIDE (CO) FROM THE TURBINE EXHAUST STACK SHALL NOT EXCEED 70 PARTS PER MILLION VOLUME ON A DRY BASIS (PPMVD) CORRECTED TO 15% OXYGEN AND AVERAGED OVER EACH ROLLING THREE-HOUR PERIOD. COMPLIANCE WITH THIS LIMIT SHALL BE DEMONSTRATED CONTINUOUSLY BASED ON CEMS DATA AND BY SOURCE TESTING, CALCULATED AS THE AVERAGE OF THREE SUBTESTS. THIS LIMIT SHALL NOT APPLY DURING STARTUP AND SHUTDOWN CONDITIONS.

26605

EMISSIONS OF VOLATILE ORGANIC COMPOUNDS (VOCS), CALCULATED AS METHANE, FROM THE TURBINE EXHAUST STACK SHALL NOT EXCEED 2 PARTS PER MILLION VOLUME ON A DRY BASIS (PPMVD) CORRECTED TO 15% OXYGEN. COMPLIANCE WITH THIS LIMIT SHALL BE DEMONSTRATED BY SOURCE TESTING, CALCULATED AS THE AVERAGE OF THREE SUBTESTS. THIS LIMIT SHALL NOT APPLY DURING STARTUP AND SHUTDOWN CONDITIONS.

26606

AMMONIA EMISSIONS SHALL NOT EXCEED 10 PARTS PER MILLION VOLUME ON A DRY BASIS (PPMVD) CORRECTED TO 15% OXYGEN. COMPLIANCE WITH THIS LIMIT SHALL BE DEMONSTRATED BY SOURCE TESTING, CALCULATED AS THE AVERAGE OF THREE SUBTESTS.

26607

OPERATING LOG OR DATA ACQUISITION SYSTEM (DAS) RECORDS SHALL BE MAINTAINED EITHER ON SITE OR AT A DISTRICT-APPROVED ALTERNATE LOCATION TO RECORD ACTUAL TIMES AND DURATIONS OF ALL STARTUPS AND SHUTDOWNS, QUANTITY OF FUEL USED (MONTHLY AND ANNUAL), HOURS OF DAILY OPERATION, AND TOTAL CUMULATIVE HOURS OF OPERATION DURING EACH CALENDAR YEAR.

26608

THE OXIDES OF NITROGEN (NOX) AND OXYGEN (O2) CEMS SHALL BE CERTIFIED AND MAINTAINED IN ACCORDANCE WITH APPLICABLE FEDERAL REGULATIONS INCLUDING THE REQUIREMENTS OF SECTIONS 75.10 AND 75.12 OF TITLE 40, CODE OF FEDERAL REGULATIONS PART 75 (40 CFR 75), THE PERFORMANCE SPECIFICATIONS OF APPENDIX A OF 40 CFR 75, THE QUALITY ASSURANCE PROCEDURES OF APPENDIX B OF 40 CFR 75

AND THE CEMS PROTOCOL APPROVED BY THE DISTRICT. THE CARBON MONOXIDE (CO) CEMS SHALL BE CERTIFIED AND MAINTAINED IN ACCORDANCE WITH 40 CFR 60, APPENDICES B AND F, UNLESS OTHERWISE SPECIFIED IN THIS PERMIT, AND THE CEMS PROTOCOL APPROVED BY THE DISTRICT.

24368

THE CEMS SHALL BE MAINTAINED AND OPERATED, AND REPORTS SUBMITTED, IN ACCORDANCE WITH THE REQUIREMENTS OF RULE 19.2 SECTIONS (D), (E), (F) (1), (F) (2), (F) (3), (F) (4) AND (F) (5), AND A CEMS PROTOCOL APPROVED BY THE AIR POLLUTION CONTROL OFFICER.

26609

THE DISTRICT SHALL BE NOTIFIED AT LEAST TWO WEEKS PRIOR TO ANY CHANGES MADE IN CEMS SOFTWARE THAT AFFECT THE MEASUREMENT, CALCULATION OR CORRECTION OF DATA DISPLAYED AND/OR RECORDED BY THE CEMS.

27992

THE TURBINE SHALL BE EQUIPPED WITH CONTINUOUS MONITORS TO MEASURE, CALCULATE AND RECORD THE FOLLOWING OPERATIONAL CHARACTERISTICS:

- A. HOURS OF OPERATION (HOURS),
- B. NATURAL GAS FLOW RATE (KSCFH),
- C. EXHAUST GAS TEMPERATURE (DEGRESS FAHRENHEIT)
- D. AMMONIA INJECTION RATE (LBS/HR),
- E. RATIO OF AMMONIA INJECTION RATE TO OUTLET NOX MASS EMISSION RATE (LBS NH3 PER LBS NOX), AND
- F. POWER OUTPUT (MW).

THESE MONITORS SHALL BE CALIBRATED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED PROCEDURES AND A PROTOCOL APPROVED BY THE DISTRICT. CALIBRATING RECORDS FOR THE CONTINUOUS MONITORS SHALL BE MAINTAINED ON SITE AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.

24615

NON-RESETTABLE TOTALIZING METERS WITH AN ACCURACY OF 5% SHALL BE MAINTAINED IN THE FUEL LINE TO MEASURE THE VOLUMETRIC FLOW RATE CORRECTED FOR TEMPERATURE AND PRESSURE OF THE FUEL. ANY CORRECTION FACTORS SHALL BE MAINTAINED ON SITE AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.

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THE AMMONIA INJECTION FLOW RATE SHALL BE CONTINUOUSLY MONITORED, RECORDED AND CONTROLLED. THE FLOWRATE DEVICE SHALL BE CALIBRATED TO AN ACCURACY OF AT LEAST 5% ON AN ANNUAL BASIS. RECORDS OF AMMONIA INJECTION RATE (IN POUNDS PER HOUR) AND FLOW RATE DEVICE CALIBRATION SHALL BE MAINTAINED AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.

27286

A CONTINUOUS EMISSION MONITORING SYSTEM (CEMS) SHALL BE INSTALLED AND PROPERLY MAINTAINED AND CALIBRATED IN ACCORDANCE WITH AN APPROVED CEMS PROTOCOL TO MEASURE, CALCULATE AND RECORD THE FOLLOWING, IN ACCORDANCE WITH THE APPROVED CEMS PROTOCOL:

- A. HOURLY AVERAGE CONCENTRATION OF OXIDES OF NITROGEN (NOX) CORRECTED TO 15% OXYGEN, IN PARTS PER MILLION (PPM);
- B. HOURLY AVERAGE CONCENTRATION OF CARBON MONOXIDE (CO) CORRECTED TO 15% OXYGEN, IN PARTS PER MILLION (PPM);
- C. PERCENT OXYGEN (O₂) IN THE EXHAUST GAS (%);
- D. AVERAGE CONCENTRATION OF OXIDES OF NITROGEN (NOX) FOR EACH CONTINUOUS ROLLING 3-HOUR PERIOD, IN PARTS PER MILLION (PPM);
- E. DAILY MASS EMISSIONS OF OXIDES OF NITROGEN (NOX), IN POUNDS;
- F. MONTHLY MASS EMISSIONS OF OXIDES OF NITROGEN (NOX), IN POUNDS;
- G. ANNUAL MASS EMISSIONS OF OXIDES OF NITROGEN (NOX), IN TONS;
- H. DAILY MASS EMISSION OF CARBON MONOXIDE (CO), IN POUNDS;

27287

- I. MONTHLY MASS EMISSION OF CARBON MONOXIDE (CO), IN POUNDS; AND
- J. ANNUAL MASS EMISSION OF CARBON MONOXIDE (CO), IN TONS.

THE CEMS SHALL BE OPERATED IN ACCORDANCE WITH THE APPROVED CEMS MONITORING PROTOCOL AT ALL TIMES WHEN THE TURBINE IS IN OPERATION. A COPY OF THE CEMS MONITORING PROTOCOL SHALL BE MAINTAINED ON SITE AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.

27288

WHEN THE CEMS IS NOT RECORDING DATA AND THE TURBINE IS OPERATING, HOURLY NOX EMISSIONS FOR THE ANNUAL EMISSION CALCULATIONS SHALL BE DETERMINED IN ACCORDANCE WITH 40 CFR 75 SUBPART C. ADDITIONALLY, HOURLY CO EMISSIONS FOR THE ANNUAL EMISSION CALCULATIONS SHALL BE DETERMINED USING THE HOURLY EMISSION RATES RECORDED BY THE CEMS DURING THE MOST RECENT HOURS IN WHICH THE TURBINE OPERATED 3 CONTINUOUS HOURS AT NO LESS THAN 80% OF FULL POWER RATING. ALTERNATE HOURLY EMISSION RATES TO BE USED SHALL BE CO EMISSION FACTORS TO BE DETERMINED FROM COMPLIANCE SOURCE TEST EMISSIONS AND FUEL CONSUMPTION DATA, IN TERMS OF POUNDS PER HOUR OF CO FOR THE GAS TURBINE. EMISSION CALCULATIONS USED TO DETERMINE ALTERNATE HOURLY EMISSION RATES SHALL BE REVIEWED AND APPROVED BY THE DISTRICT, IN WRITING, BEFORE THE ALTERNATIVE HOURLY EMISSION RATES ARE INCORPORATED WITH THE CEMS EMISSION DATA.

28009

ANY VIOLATION OF ANY EMISSION STANDARD AS INDICATED BY THE CEMS SHALL BE REPORTED TO THE DISTRICT'S COMPLIANCE DIVISION WITHIN 96 HOURS AFTER SUCH OCCURENCE.

26535

A RELATIVE ACCURACY TEST AUDIT (RATA) AND ALL OTHER REQUIRED CERTIFICATION TESTS SHALL BE PERFORMED AND COMPLETED ON THE CEMS IN ACCORDANCE WITH 40 CFR PART 75 APPENDIX A AND B PERFORMANCE SPECIFICATIONS. AT LEAST 21 DAY PRIOR TO THE TEST DATE, THE PERMITTEE SHALL SUBMIT A TEST PROTOCOL TO THE DISTRICT FOR APPROVAL. ADDITIONALLY, THE DISTRICT SHALL BE NOTIFIED A MINIMUM OF 21 DAYS PRIOR TO THE TEST SO THAT OBSERVERS MAY BE PRESENT. WITHIN 30 DAYS OF COMPLETION OF THIS TEST, A WRITTEN TEST REPORT SHALL BE SUBMITTED TO THE DISTRICT FOR APPROVAL.

27993

THIS UNIT SHALL BE SOURCE TESTED TO DEMONSTRATE COMPLIANCE WITH THE NOX, CO, VOC, AND AMMONIA EMISSION STANDARDS OF THIS PERMIT, USING DISTRICT APPROVED METHODS. THE SOURCE TEST AND THE NOX AND CO RATA TESTS SHALL BE COMPLETED ONCE EVERY FOUR SUCCESSIVE QA OPERATING QUARTERS (AS DEFINED BY 40 CFR 72.2, AT LEAST 168 OPERATING HOURS). IF THE SOURCE TEST OR RATA TEST HAS NOT BEEN COMPLETED BY THE END OF QA OPERATING QUARTER IN WHICH IT IS DUE, THEN THE TESTS SHALL BE COMPLETED WITHIN A 30-CALENDAR DAY GRACE PERIOD. THE GRACE PERIOD SHALL BEGIN WITH THE FIRST OPERATING HOUR FOLLOWING THE CALENDAR QUARTER IN WHICH THE SOURCE TEST OR RATA TEST WAS DUE.

28322

(CONTINUED FROM ABOVE) A TEST COMPLETED WITH IN A PERIOD OF 30 CALENDAR DAYS AFTER THE END OF A FOURTH SUCCESSIVE OPERATING QUARTER OR EIGHTH SUCCESSIVE CALENDAR QUARTER IN WHICH A TEST IS REQUIRED SHALL BE CONSIDERED TO HAVE OCCURRED IN THAT QUARTER.

27289

- THE SOURCE TEST PROTOCOL SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:
- A. MEASUREMENTS OF OUTLET OXIDES OF NITROGEN (NOX), CARBON MONOXIDE (CO), AND STACK GAS OXYGEN CONTENT (O2%) SHALL BE CONDUCTED IN ACCORDANCE WITH U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) METHOD 7E AND DISTRICT SOURCE TEST METHOD 100, OR THE AIR RESOURCES BOARD (ARB) TEST METHOD 100, AS APPROVED BY THE EPA;
 - B. MEASUREMENT OF OUTLET VOLATILE ORGANIC COMPOUNDS (VOC) EMISSIONS SHALL BE CONDUCTED IN ACCORDANCE WITH THE SAN DIEGO AIR POLLUTION CONTROL DISTRICT METHODS 25A AND/OR 18;

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- C. MEASUREMENTS OF OUTLET AMMONIA SHALL BE CONDUCTED IN ACCORDANCE WITH BAY AREA AIR QUALITY MANAGEMENT DISTRICT (BAAQMD) TEST METHOD ST-1B;
- D. SOURCE TESTING SHALL BE PERFORMED AT NO LESS THAN 80% OF THE TURBINE RATED LOAD.

26538

WITHIN 30 DAYS AFTER COMPLETION OF THE RENEWAL SOURCE TEST OR RATA, A FINAL TEST REPORT SHALL BE SUBMITTED TO THE DISTRICT FOR REVIEW AND APPROVAL.

APPENDIX D: TITLE IV PERMIT

Acid Rain Permit (Title IV)

Issued to: MMC Energy North America LLC
Operated by: MMC Chula Vista LLC
ORIS Code: 55540
Effective: April 12, 2005 through April 12, 2010

1) Statement of Basis

Statutory and Regulatory Authorities: In accordance with District Regulation XIV and Titles IV and V of the federal Clean Air Act, the San Diego County Air Pollution Control District issues this permit pursuant to Regulation XIV.

2) SO₂ Allowance Allocations for Each Affected Unit

If the number of allowances allocated to a Phase II unit identified below is revised by EPA, this permit does not need to be reopened to revise the unit SO₂ allowance allocations.

		2004	2005	2006	2007	2008	2009
Permit No. 976039	SO ₂ annual allowances (tons) pursuant to 40 CFR part 73	Xi	Xi	Xi	Xi	Xi	Xi

ith year

3) Comments, Notes and Justifications

No NO_x limit was included in Section 2 because none of the units are affected units subject to 40 CFR part 76.

Richard J. Smith
Air Pollution Control Officer
San Diego County Air Pollution Control District
San Diego, CA 92131
(858) 586-2600
(858) 586-2601 - Fax

APPENDIX B. RULE REFERENCE TABLE (LAST UPDATED 3/29/04)

Rule Citation¹	Rule Title	A/R²	District Adoption Date³	SIP FR Approval Date
	REGULATION I - GENERAL PROVISIONS			
1	Title	F	04/30/80	09/28/81
2	Definitions	F	06/30/99	02/03/00
4	Review of Rules	F	01/01/70 [†]	09/22/72
5	Authority to Arrest	F	03/24/76 [†]	05/11/77
	REGULATION II - PERMITS			
10	Permits Required	F	07/25/95	03/11/98
10.1 ^{††}	NSPS & NESHAPS Requirements	D	11/8/76	N/A
11	Exemptions	F	09/20/78	07/06/82
11	Exemptions from Rule 10 Permit Requirements	D/F	11/15/00	Pending
12	Registration of Specified Equipment	D	11/15/00	N/A
12.1	Portable Equipment Registration	D	05/21/97	N/A
14	Applications	F	04/30/80	09/28/81
15	Permit Process - Public Notifications	D/F	09/18/90	Pending
17	Cancellation of Applications	F	11/25/81	03/11/98
18	Action on Applications	F	01/17/72	09/22/72
18	Action on Applications	D/F	09/18/90	Pending
19	Provision of Sampling and Testing Facilities	F	04/06/93	03/11/98
19.1 ^{††}	NSPS & NESHAPS Provision of Sampling and Testing Facilities Requirements	D	11/08/76	N/A
19.2	Continuous Emission Monitoring Requirements	F	12/13/78	09/28/81
19.3	Emission Information	F	5/15/96	03/09/00
20	Standards for Granting Applications	F	01/17/72	09/22/72
20	Standards for Granting Permits	D/F	06/10/86	Pending
20.1	Definitions, Emission Calculations, Emission Offsets and Banking, Exemptions, and Other Requirements	F	07/05/79	04/14/81
20.1	NSR - General Provisions	D/F	11/04/98	Pending
20.2	Standards for Authority to Construct - Best Available Air Pollution Control Technology	F	07/05/79	04/14/81
20.2	NSR - Non-major Stationary Sources	D/F	11/04/98	Pending
20.3	Standards for Authority to Construct - Air Quality Analysis	F	07/05/79	04/14/81
20.3	NSR - Major Stationary Source and PSD Stationary Source	D/F	11/04/98	Pending

1. Rule Citations marked with an “††” contain no substantive requirements and are listed for informational purposes only.
2. ‘A/R’ DENOTES ENFORCEABILITY OF THE LISTED APPLICABLE REQUIREMENT AS FOLLOWS:
‘F’ Denotes a Federal applicable requirement that is federally enforceable and District enforceable.
‘D/F’ Denotes a District applicable requirement which is pending SIP approval. When such a rule receives SIP approval, it supersedes the existing SIP rule and becomes the Federal applicable requirement.
‘D’ Denotes a District only applicable requirement. This may include some state requirements that are enforceable by the District.
3. District adoption dates marked with an “†” are the effective date of the rule, the actual adoption date is uncertain.

20.4	Standards for Authority to Construct - Major Stationary Sources	F	07/05/79	04/14/81
20.4	NSR - Portable Emission Units	D/F	11/04/98	Pending
20.5	Power Plants	F	07/05/79	04/14/81
20.6	Standards for Permit to Operate - Air Quality Analysis	F	07/05/79	04/14/81
20.6	Standards for Permit to Operate Air Quality Analysis	D/F	12/15/87	Pending
20.8	Special Offset Requirement Relating to Banking	D	2/16/83	N/A
21	Permit Conditions	F	11/29/94	03/11/98
22	Denial of Applications	F	01/01/69 [†]	09/22/72
23	Further Information	F	01/01/69 [†]	09/22/72
24	Applications Deemed Denied	F	08/15/70 [†]	09/22/72
24	Applications Deemed Denied	Repealed	03/20/96	Pending
24	Temporary Permit to Operate	D/F	03/20/96	Pending
25	Appeals	F	01/01/69 [†]	09/22/72
25	Appeals	D/F	06/21/00	Pending
26.0	Banking of Emission Reduction Credits (ERCs) - General Requirements	D/F	10/22/97	Pending
26.1	Standards for Granting Emission Reduction Credits (ERCs)	D/F	10/22/97	Pending
26.2	Use of Emission Reduction Credits (ERCs)	D/F	10/22/97	Pending
26.3	Reclassification of Class B Emission Reduction Credits (ERCs)	D/F	10/22/97	Pending
26.4	Permanency of Banked Emission Reduction Credits (ERCs)	D/F	10/22/97	Pending
26.5	Transfer of Emission Reduction Credits (ERCs)	D/F	10/22/97	Pending
26.6	District Banking of Emission Reduction Credits (ERCs)	D/F	10/22/97	Pending
26.7	Shutdown and Related Emission Unit	D/F	10/22/97	Pending
26.8	Banking of Limited Emission Reductions	D/F	10/22/97	Pending
26.9	Emission Reduction Credit Certificates and The Emission Reduction Credit Register	D/F	10/22/97	Pending
26.10	Banking For BRAC Military Base Closure or Realignment Actions	D/F	10/22/97	Pending
27	Banking of Mobile Source Emission Reduction Credits	D/F	11/29/94	Pending
	REGULATIONS III - FEES			
40	Permit Fees	D	8/13/03	N/A
42	Hearing Board Fees	D	06/21/00	N/A
44	Technical Reports, Charges for	D	12/7/83	N/A
	REGULATIONS IV - PROHIBITIONS			
50	Visible Emissions	F	08/13/97	12/7/98
50.1 ^{††}	NSPS & NESHAPS Visible Emissions Requirements	D	11/08/76	N/A
51	Nuisance	F	01/01/69 [†]	09/22/72
52	Particular Matter	F	01/22/97	12/9/98
52.1 ^{††}	NSPS & NESHAPS Particular Matter Requirements	D	11/08/76	N/A
53	Specific Contaminants	F	01/22/97	12/9/98
53.1	Scavenger Plants	F	01/01/69 [†]	09/22/72
53.2 ^{††}	NSPS & NESHAPS Specific Contaminants Requirements	D	11/08/76	N/A
54	Dusts and Fumes	F	01/22/97	12/9/98
54.1	NSPS & NESHAP Dust and Fumes Requirement	D	11/08/76	N/A
58	Incinerator Burning	F	01/17/73 [†]	05/11/77
59	Control of Waste Disposal - Site Emissions	D/F	11/03/87	Pending

59.1	Municipal Solid Waste Landfills	D	06/17/98	N/A
60	Circumvention	F	05/17/94	03/09/00
60.2	Limiting Potential to Emit - Synthetic Minor Sources	D	08/13/03	N/A
61.0	Definitions Pertaining to the Storage & Handling of Organic Compounds	F	10/16/90	09/13/93
61.1	Receiving & Storing Volatile Organic Compounds at Bulk Plants & Bulk Terminals	F	01/10/95	08/08/95
61.2	Transfer of Volatile Organic Compounds into Mobile Transport Tanks	D/F	07/26/00	Pending
61.3	Transfer of Volatile Organic Compounds into Stationary Storage Tanks	F	10/16/90	06/30/93
61.4	Transfer of Volatile Organic Compounds into Vehicle Fuel Tanks	F	10/16/90	05/13/93
61.5	Visible Emission Standards for Vapor Control Systems	F	09/20/78 [†]	04/14/81
61.6	NSPS Requirements for Storage of Volatile Organic Compounds	D/F	01/13/87	Pending
61.7	Spillage and Leakage of Volatile Organic Compounds	F	01/13/87	03/11/98
61.8	Certification Requirements for Vapor Control Equipment	F	01/13/87	03/11/98
62	Sulfur Content of Fuels	F	10/21/81	07/06/82
62.1 ^{††}	NSPS Requirements for Sulfur Content of Fuels	D	11/08/76	N/A
64	Reduction of Animal Matter	F	07/22/81	07/06/82
66	Organic Solvents	F	07/25/95	08/11/98
67.0	Architectural Coatings	F	05/15/96	03/27/97
67.0	Architectural Coatings	D/F	12/12/01	Pending
67.1	Alternative Emission Control Plans	F	05/15/96	03/27/97
67.2	Dry Cleaning Equipment Using Petroleum - Based Solvent	F	05/15/96	03/27/97
67.3	Metal Parts and Products Coating Operations	F	05/15/96	03/27/97
67.4	Metal Container, Metal Closure and Metal Coil Coating Operations	F	05/15/96	11/03/97
67.5	Paper, Film and Fabric Coating Operations	F	05/15/96	03/27/97
67.6	Solvent Cleaning Operations	F	10/16/90	12/13/94
67.7	Cutback and Emulsified Asphalts	F	05/15/96	03/27/97
67.9	Aerospace Coating Operations	F	04/30/97	08/17/98
67.10	Kelp Processing and Bio-Polymer Manufacturing	F	06/25/97	06/22/98
67.11	Wood Parts and Products Coating Operations	D/F	09/25/02	Pending
67.11.1	Large Coating Operations for Wood Products	F	09/25/03	06/05/03
67.12	Polyester Resin Operations	F	05/15/96	03/27/97
67.15	Pharmaceutical and Cosmetic Manufacturing Operations	F	05/15/96	03/27/97
67.16	Graphic Arts Operations	F	05/15/96	03/27/97
67.17	Storage of Materials Containing Volatile Organic Compounds	F	05/15/96	03/27/97
67.18	Marine Coating Operations	F	05/15/96	03/27/97
67.19	Coating and Printing Inks Manufacturing Operations	F	05/15/96	01/19/00
67.20	Motor Vehicle & Mobile Equipment Refinishing Operations	D	11/13/96	N/A
67.21	Adhesive Material Application Operations	D	12/16/98	N/A
67.22	Expandable Polystyrene Foam Products Manufacturing Operations	D	05/15/96	N/A
67.24	Bakery Ovens	F	05/15/96	03/27/97
68	Fuel-Burning Equipment – Oxides of Nitrogen	F	09/20/94	04/09/96

68.1 ^{††}	NSPS Requirements for Oxides of Nitrogen from Fuel-Burning Equipment	D	11/08/76	N/A
69	Electrical Generating Steam Boilers, Replacement Units & New Units	D	12/12/95	N/A
69.2	Industrial & Commercial Boilers, Process Heaters & Steam Generators	F	09/27/94	02/09/96
69.3	Stationary Gas Turbine Engines	F	09/27/94	06/17/97
69.3	Stationary Gas Turbine Engines – RACT	D/F	12/16/98	Pending
69.3.1	Stationary Gas Turbine Engines – BARCT	D	12/16/98	N/A
69.4	Stationary Internal Combustion Engines	F	09/27/94	01/22/97
69.4	Stationary Internal Combustion Engines – RACT	D/F	07/30/03	Pending
69.4.1	Stationary Internal Combustion Engines - BARCT	D	11/15/00	N/A
69.5	Natural Gas-Fired Water Heaters	D	06/17/98	N/A
69.6	Natural Gas-Fired Fan-Type Central Furnaces	D	06/17/98	N/A
70	Orchard Heaters	F	01/17/72	09/22/72
71	Abrasive Blasting	F	03/30/77	08/31/78
	REGULATION V - PROCEDURES BEFORE THE HEARING BOARD			
75	Procedure Before the Hearing Board	D/F	09/17/85	Pending
75.1 ^{††}	NSPS & NESHAPS Variance Procedures	D	09/17/85	7/30/79
97	Emergency Variance	D/F	07/25/95	Pending
98	Breakdown Conditions: Emergency Variance	D/F	07/25/95	Pending
	REGULATION VI - BURNING CONTROL			
101	Burning Control	F	09/25/02	04/30/03
	REGULATION VII - VALIDITY AND EFFECTIVE DATE			
140	Validity	F	01/01/69 [†]	09/22/72
141	Effective Date	F	01/01/69 [†]	09/22/72

REGULATION VIII - SAN DIEGO AIR POLLUTION EMERGENCY PLAN				
126	Applicability	F	05/25/77	08/31/78
127	Episode Criteria Levels	F	09/17/91	03/18/99
128	Episode Declaration	F	09/17/91	03/18/99
129	Episode Termination	F	05/25/77	08/31/78
130	Episode Actions	F	09/17/91	03/18/99
131	Stationary Source Curtailment Plan	F	04/01/81	06/21/82
132	Traffic Abatement Plan	F	04/01/81	06/21/82
132	Traffic Abatement Plan	D/F	12/17/97	Pending
133	Schools	F	05/25/77	08/31/78
134	Source Inspection	F	04/01/81	06/21/82
135	Air Monitoring Stations	F	05/25/77	08/31/78
136	Interdistrict and Interbasin Coordination	F	05/25/77	08/31/78
137	Emergency Action Committee	F	05/25/77	08/31/78
138	Procedures and Plans	F	05/25/77	08/31/78
	APPENDIX A - Persons to be Notified on Episode Declaration	F		
REGULATION IX - PUBLIC RECORDS				
175	General	F	05/22/74 [†]	05/11/77
176	Information Supplied to District	F	05/22/74 [†]	05/11/77
177	Inspection of Public Records	F	03/30/77	08/31/78
177	Inspection of Public Records	D/F	06/20/01	Pending
REGULATION XII - TOXIC AIR CONTAMINANTS				
1200	Toxic Air Contaminants - New Source Review	D	06/12/96	N/A
1202	Hexavalent Chromium - Cooling Towers	D	07/25/95	N/A
1203	Ethylene Oxide Sterilizers and Aerators	D	07/26/00	N/A
1205	Control of Dioxins Emissions from Medical Waste Incinerators	D	01/01/94	N/A
1210	Toxic Air Contaminant Public Health Risks - Public Notification and Risk Reduction	D	06/12/96	N/A

REGULATION XIV - TITLE V OPERATING PERMITS				
1401	General Provisions	F	05/23/01	02/27/04
1410	Permit Required	F	05/23/01	02/27/04
1411	Exemption from Permit to Operate for Insignificant Units	F	01/18/94	11/30/01
1412	Federal Acid Rain Program Requirements	F	01/18/94	11/30/01
1413	Early Reduction of Hazardous Air Pollutants	F	03/07/95	11/30/01
1414	Applications	F	03/07/95	11/30/01
1415	Permit Process-Public Notification	F	05/23/01	02/27/04
1417	Pendency & Cancellation of Applications	F	03/07/95	11/30/01
1418	Action on Applications	F	03/07/95	11/30/01
1419	Provisions of Sampling & Testing Facilities & Emission Information	F	03/07/95	11/30/01
1420	Standards for Granting Permits	F	03/07/95	11/30/01
1421	Permit Conditions	F	03/07/95	02/27/04
1422	Denial or Cancellation Of Applications	F	03/07/95	11/30/01
1423	Further Information	F	01/18/94	11/30/01
1424	Applications Deemed Denied	F	01/18/94	11/30/01
1425	Appeals & Judicial Review	F	03/07/95	02/27/04
	APPENDIX A - Insignificant Units	F	01/18/94	11/30/01
	APPENDIX A - Insignificant Units	F	05/23/01	11/30/01
REGULATION XV - FEDERAL CONFORMITY				
1501	Conformity of General Federal Actions	F	03/07/95	04/23/99

The following NSPS and NESHAP have been adopted locally by the SDCAPCD. EPA has granted the District delegation for each of these rules, therefore these rules, as adopted by the District are the federally applicable requirements. For all other NSPS and NESHAP, the versions cited in the CFR are the federally applicable requirements.

Subpart & Citation	Rule Title	District Adoption Date	Federal Delegation Date
Part 60 REGULATION X - STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES			
A	General Provisions	original unknown 08/07/80* 01/13/87 03/27/90 11/03/92	11/08/76
D	Standards of Performance for Fossil Fuel-Fired Steam Generators	original unknown 09/17/77* 06/16/78* 01/12/79* 08/07/80*	11/08/76
Da	Standards of Performance for Electric Utility Steam Generating Units Constructed After September 18, 1978	original unknown	05/24/82
Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating	12/15/87 03/14/89 09/21/93	07/18/89
E	Standards of Performance for Incinerators	Original unknown	03/30/77
I	Standards of Performance for Asphalt Concrete Plants	original unknown 01/13/87	11/08/76
K	Standards of Performance for Storage Vessels for Petroleum Liquids Construct After June 11, 1973 and Prior to May 19, 1978	original unknown 05/01/81* 03/14/89*	11/08/76
Ka	Standards of Performance for Storage Vessels for Petroleum Liquids Construction after May 18, 1978	03/04/82 03/14/89*	05/24/82
Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984	03/14/89 10/16/90	07/18/89
L	Standards of Performance for Secondary Lead Smelters	original unknown	11/08/76
M	Standards of Performance for Secondary Brass and Bronze Ingot Production Plants	original unknown 09/17/85*	03/30/77
O	Standards of Performance for Sewage Treatment Plants	01/13/87	09/17/87
DD	Standards of Performance for Grain Elevators	original unknown	05/24/82
EE	Standards of Performance for Surface Coating Metal Furniture	03/04/86 11/03/92	03/19/87
GG	Standards of Performance for Stationary Gas Turbines	original unknown 11/24/82*	05/24/82

QQ	Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing	08/24/83	12/22/83
RR	Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations	09/17/86 11/03/92	03/19/87
SS	Standards of Performance for the Industrial Surface Coating Large Appliances	02/22/84 11/03/92*	04/24/84
TT	Standards of Performance for Metal Coil Surface Coating	02/22/84 11/03/92*	04/24/84
BBB	Standards of Performance for the Rubber Tire Manufacturing Industry	03/14/89	07/18/89
FFF	Standards of Performance for Flexible Vinyl and Urethane Coating and Printing	09/17/86	03/19/87
JJJ	Standards of Performance for Petroleum Dry Cleaners	12/15/87	07/18/89
Part 61	REGULATION XI - NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAPS)		
A	General Provisions	01/13/87	05/24/82
C	National Emission Standard for Beryllium	Unknown	11/08/76
D	National Emission Standard for Beryllium Rocket Motor Firing	Unknown	11/08/76
E	National Emission Standard for Mercury	03/27/90	05/17/91
F	National Emission Standard for Vinyl Chloride	08/17/77 06/16/78	11/21/77
M	National Emission Standard for Asbestos	06/04/85 02/01/95	07/18/89

The following ATCM and NESHAP have not been adopted by the SDCAPCD, but are being implemented and enforced by the District as ATCM's.

Subpart & Citation	Rule Title	A/R²	Most Recent Adoption Date
APPENDIX A - CALIFORNIA AIRBORNE TOXIC CONTROL MEASURES (ATCM)			
17 CCR § 93102	Hexavalent Chromium ATCM for Chrome Plating & Chromic Acid Anodizing Operations	F	05/21/98
17 CCR § 93109	ATCM For Emissions of Perchloroethylene From Dry Cleaning Operations	F	10/14/93
17 CCR § 93105	ATCM for Construction, Grading, Quarrying, and Surface Mining Operations	D	07/26/01
17 CCR § 93106	Asbestos ATCM for Surface Applications	D	07/20/00
17 CCR § 93107	ATCM For Emissions of Toxic Metals From Non-Ferrous Metal Melting	D	01/14/93
17 CCR § 93108.5	Ethylene Oxide ATCM -- Sterilizers and Aerators	D	05/21/98
17 CCR § 93111	ATCM for Emissions of Chlorinated Toxic Air Contaminants from Automotive Maintenance & Repair Activities	D	04/27/00
17 CCR § 93112	ATCM for Emissions of Hexavalent Chromium and Cadmium from Motor Vehicle and Motor Equipment Coatings	D	09/20/01
17 CCR § 93113	ATCM to Reduce Emissions of Toxic Air Contaminants from Outdoor Residential Waste Burning	D	02/03/03
APPENDIX B - NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP) FOR SOURCE CATEGORIES			
Part 63 Subpart			
A	General Provisions	F	05/30/03
R	Gasoline Distribution	F	12/19/03
T	Halogenated Solvent Cleaning	F	09/08/00
DD	Off-site Waste & Recovery Operations	F	07/20/99
GG	Aerospace Manufacturing and Rework Facilities	F	12/08/00
II	Shipbuilding and Ship Repair (Surface Coating)	F	12/15/95
JJ	Wood Furniture Manufacturing Operations	F	12/28/98
AAAA	Municipal Solid Waste Landfills	F	01/16/03

The following NSPS have been adopted by the SDCAPCD by reference. The rules listed below are the CFR versions of these rules which are federally applicable requirements.

Subpart & Citation	Rule Title	Latest EPA Promulgation Date	District Adoption Date	Delegation Date
Part 60 APPENDIX C - STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES (NSPS)				
D	Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971	10/17/00	110/17/01	Pending
Da	Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978	06/11/01	10/17/01	Pending
Db	Standards of Performance for Industrial-Commercial - Institutional Steam Generating Units	10/01/01	04/25/01	Pending
Dc	Standards of Performance for Small Industrial-Commercial -Institutional Steam Generating Units	05/08/96	08/13/97	06/24/98
GG	Standards of Performance for Stationary Gas Turbines	06/27/89	10/17/01	Pending
AAA	Standards of Performance for New Residential Wood Heaters	06/12/99	04/12/00	Pending
OOO	Standards of Performance for Nonmetallic Mineral Processing Plants	06/09/97	04/28/99	05/28/02
UUU	Standards of Performance for Calciners and Dryers in Mineral Industries	07/29/93	11/17/99	05/28/02
WWW	Standards of Performance for Municipal Solid Waste Landfills	04/10/00	08/13/97	06/24/98