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BAY AREA AIR QUALITY
MANAGEMENT DISTRICT

January 26, 2012

Director of Compliance and Enforcement
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109
Attn: Title V Reports

Subject: Applicable Limits & Compliance Monitoring Report
Six-Month Report from July 2011 to December 2011

This report has been generated to comply with the requirements of the Title V Permit issued to Cardinal Cogen on May 7, 2008. We used the existing Section VII of the Title V Permit to indicate the compliance status for the listed sources.

If you have any questions please contact Nancy Chock at (650) 723-1790.

Sincerely,



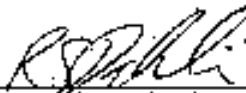
Nancy Chock
EHS Manager - Cardinal Cogen

Compliance Certification

Based on information and belief formed after reasonable inquiry, the statements and information in the attached document are true, accurate, and complete.

Ron Dahlin

Name of Responsible Official



Signature

July 1, 2011 to December 31, 2011

Certification Period

January 26, 2012

Date

Facility A1629
Cardinal Cogen
Campus and Jordan Way
Palo Alto, CA 94305

Applicable Emission Limits & Compliance Monitoring Requirements

This section has been included only to summarize the applicable emission limits contained in Section IV, Source-Specific Applicable Requirements, of this permit. The following tables show the relationship between each emission limit and the associated compliance monitoring provisions, if any. The monitoring frequency indicates whether periodic (P) or continuous (C) monitoring is required. For periodic monitoring, the frequency of the monitoring has also been shown, using the following codes: annual (A), quarterly (Q), monthly (M), weekly (W), daily (D), or on an event basis (E). No monitoring (N) has been required if the current applicable rule or regulation does not require monitoring, and the operation is unlikely to deviate from the applicable emission limit based upon the nature of the operation.

**Table VII-A
S-1, S-2, S-3, S-4, Boilers**

Type of Limit	Emission Limit Citation	Y/N	Compliance Status	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Oxides of Nitrogen	BAAQMD 9-7-301.1	Y	In Compliance	30 ppmv @3% O ₂ , dry		N	
	BAAQMD 9-7-302.1	Y	In Compliance	40 ppmv @3% O ₂ , dry		N	
	BAAQMD 9-7-303	Y	In Compliance	Weighted average of 9-7-301.1 and 9-7-302.1	BAAQMD 9-7-501	C	Non-resettable fuel meters
	BAAQMD 9-7-305.1	Y	In Compliance	150 ppmv @3% O ₂ , dry		N	
	BAAQMD 9-7-306.1	Y	In Compliance	150 ppmv @3% O ₂ , dry		N	
	BAAQMD Permit Condition 2878 part 1f	Y	In Compliance	25 ppmv @3% O ₂ , dry, averaged over 3 hours		N	
	PSD permit part IX, C, 2	Y	In Compliance	25 ppm @ 3% O ₂ , 3-hr rolling average		N	

Applicable Emission Limits & Compliance Monitoring Requirements

Table VII-A (continued)
S-1, S-2, S-3, S-4, Boilers

Type of Limit	Emission Limit Condition	Y/N	Compliance Status	Emission Unit	Monitoring Requirement (Condition)	Monitoring Frequency (P/C/N)	Monitoring Type
Carbon Monoxide	BAAQMD 9-7-301.2	Y	In Compliance	400 ppmv @3%O ₂ , dry		N	
	BAAQMD 9-7-302.2	Y	In Compliance	400 ppmv @3%O ₂ , dry		N	
	BAAQMD 9-7-303	Y	In Compliance	400 ppmv @3%O ₂ , dry		N	
	BAAQMD 9-7-305.2	Y	In Compliance	400 ppmv @3%O ₂ , dry		N	
	BAAQMD 9-7-306.2	Y	In Compliance	400 ppmv @3%O ₂ , dry		N	
	BAAQMD Permit Condition 2878 part 1f	Y	In Compliance	200 ppmv @3% O ₂ , dry, averaged over 3 hours		N	
Hours of operation	BAAQMD Permit Condition Number 2878 part 1b	Y	In Compliance	Maximum of 1000 hrs/years @ 292 MM BTU/hr for all 4 boilers total when the Gas Turbine and Duct Burners are operable but the Gas Turbine is limited in power output due to a power curtailment order	None	P/E	Records
	BAAQMD Permit Condition Number 2878 part 1f	Y	In Compliance	1 hr/mo for all 4 boilers total when operating as fuel delivery test units	None	P/E	Records

Applicable Emission Limits & Compliance Monitoring Requirements

Table VII-A (continued)
 S-1, S-2, S-3, S-4, Boilers

Type of Limit	Emission Limit Citation	Y/N	Compliance Status	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/E/N)	Monitoring Type
Hours of operation	BAAQMD Permit Condition Number 2878 part 1g	Y	In Compliance	Normal operability tests: up to 2 hrs/test, one boiler at a time, each boiler once per rolling 30 day period with natural gas, each boiler twice in rolling 12 months for No. 2 Fuel Oil	None	P/E	Records
	BAAQMD Permit Condition Number 2878 part 1h	Y	In Compliance	Operability tests after maintenance: one boiler at a time	None	P/E	Records
SO ₂	BAAQMD 9-1-301	N	In Compliance	GILC ¹ of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N	
	BAAQMD 9-1-302	Y	In Compliance	300 ppm (dry)		N	
Fuel Sulfur Content	BAAQMD 9-1-304	Y	In Compliance	Sulfur content of fuel <0.5% by weight	BAAQMD Permit Condition Number 2878 part 18	P/E	Fuel analysis or certification

Applicable Emission Limits & Compliance Monitoring Requirements

Table VII-A (continued)
S-1, S-2, S-3, S-4, Boilers

Type of Limit	Emission Limit Citation	EE Y/N	Compliance Status	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Fuel usage	BAAQMD Permit Condition Number 2878 part 1b	Y	In Compliance	Up to 124.3 MM BTU/HR for all 4 boilers total when Duct Burners are not operating due to maintenance or repair	BAAQMD Permit Condition Number 2878 part 11	C	Non-resettable fuel meters, records
	BAAQMD Permit Condition Number 2878 part 1c	Y	In Compliance	Up to 146 MM BTU/HR for all 4 boilers total when Duct Burners are not operating due to natural gas curtailment	BAAQMD Permit Condition Number 2878 part 11	C	Non-resettable fuel meters, records
	BAAQMD Permit Condition Number 2878 part 1d	Y	In Compliance	Up to 292 mmbtu/hr for all 4 boilers total for up to 1000 hrs/year when the Gas Turbine and Duct Burners are operable but the Gas Turbine is limited in power output due to a power curtailment order	BAAQMD Permit Condition Number 2878 part 11	C	Non-resettable fuel meters, records
	BAAQMD Permit Condition Number 2878 part 1e & 1f	Y	In Compliance	1,980,000 therms per rolling 12 months for all 4 boilers total when operating as a peaking unit or fuel delivery test unit	BAAQMD Permit Condition Number 2878 part 11	C	Non-resettable fuel meters, records

Applicable Emission Limits & Compliance Monitoring Requirements

Table VII-A (continued)
 S-1, S-2, S-3, S-4, Boilers

Type of Limit	Emission Limit Citation	Y/N	Compliance Status	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Fuel usage	BAAQMD Permit Condition Number 2878 part 1g	Y	In Compliance	Operability tests: up to 30 min/hour for 2 hrs	BAAQMD Permit Condition Number 2878 part 11	C	Non-resettable fuel meters, records
	BAAQMD Permit Condition Number 2878 part 1h	Y	In Compliance	Operability tests: after maintenance, 1 boiler at a time	BAAQMD Permit Condition Number 2878 part 11	C	Non-resettable fuel meters, records
	BAAQMD Permit Condition Number 2878 part 7	Y	In Compliance	520 MM cf combined fuel usage for duct burners and boilers (when operating per condition #2878, part 1h) per year	BAAQMD Permit Condition Number 2878 part 11	C	Non-resettable fuel meters, records
	PSD permit part IX, F, 2	Y	In Compliance	1,980,000 therms per rolling 12 months for all 4 boilers total	PSD permit part IX, G, 5	C	Non-resettable fuel meters, records
Opacity	BAAQMD 6-301	N	In Compliance	> Ringelmann No. 1 for no more than 3 minutes in any one hour		N	
FP	BAAQMD 6-310.3	Y	In Compliance	0.15 grain/dscf @ 6% O ₂		N	

¹ Ground Level Concentration

Facility Name: Cardinal Cogen
 Permit for Facility #A1629
 Expiration Date: August 23, 2010
 (Permit Renewal Submitted 2/19/2010)
 ID: BFC
 Six Month Report
 For Period July 1, 2011 to December 31, 2011

Applicable Emission Limits & Compliance Monitoring Requirements

Table VII-B
 S-6, Turbine

Type of limit	Emission Limit Citation	FE Y/N	Compliance Status	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NO _x	BAAQMD 9-9-301.2	Y	In Compliance	Natural Gas NO _x Emissions Rate ≤ 0.43 lb/MWhr @ 15% O ₂ dry, averaged over any consecutive 3 hours	BAAQMD 9-9-501; BAAQMD Permit Condition 2878 part 4b	C	CEM
	BAAQMD Permit Condition 2878 part 3a	Y	In Compliance	≤ 42 ppmv @ 15% O ₂ dry, averaged over 3 hours in combined Gas Turbine/Duct Burner exhaust	BAAQMD Permit Condition 2878 part 4	C	CEM
	BAAQMD Permit Condition 2878 part 3b	N	In Compliance	≤ 14.6 ppmv @ 15% O ₂ dry, averaged over 3 hours in Gas Turbine exhaust	BAAQMD Permit Condition 2878 part 4b	C	CEM
	BAAQMD Permit Condition 2878 part 3b	N	In Compliance	≤ 16.9 ppmv @ 15% O ₂ dry, averaged over 24 hours in Gas Turbine exhaust @ less than 30% baseload	BAAQMD Permit Condition 2878 part 4b	C	CEM

Applicable Emission Limits & Compliance Monitoring Requirements

Table VII-B (continued)
 S-6, Turbine

Type of Limit	Emission Limit Citation	EE Y/N	Compliance Status	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
	NSPS Subpart GG 60.332(a) (1)	Y	In Compliance	≤108 ppmv @ 15% O ₂ dry	NSPS Subpart GG, 60.334(d)	C	CEM
NO _x	PSD permit part IX, C	Y	In Compliance	42 ppm @ 15% O ₂ combined limits (turbine/duct burner) averaged over 24 hours when burning natural gas	PSD permit part IX, E	C	CEM
Carbon Monoxide	BAAQMD Permit Condition Number 2878 part 5	Y	In Compliance	< 150 tons per year from turbine and duct burner combined	BAAQMD Permit Condition Number 2878 part 14	C	CEM
Hours of operation	BAAQMD Permit Condition Number 2878, part 2	Y	In Compliance	< 1000 hrs/rolling 12 months of operation @ < 80% baseload	BAAQMD Condition #2878, Part 16	P/E	records
SO ₂	BAAQMD 9-1-301	N	In Compliance	GLCL of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N	
SO ₂	BAAQMD 9-1-302	Y	In Compliance	300 ppm (dry)		N	
Fuel Sulfur Content	NSPS 40 CFR 60.33(b)	Y	In Compliance	Fuel Sulfur content of 0.8 percent by weight	40 CFR 60.33(h)(1)	N	

Applicable Emission Limits & Compliance Monitoring Requirements

Table VII-B (continued)
 S-6, Turbine

Type of Limit	Emission Limit Citation	FE Y/N	Compliance Status	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Opacity	BAAQMD 6-301	Y	In Compliance	> Ringelmann No. 1 for no more than 3 minutes in any one hour		N	
FP	BAAQMD 6-310	Y	In Compliance	0.15 grain/dscf		N	
Fuel usage	PSD permit part IX, G, 2	Y	In Compliance	3,850 million of natural gas in any calendar year	PSD permit part IX, G, 4	C	Fuel meter, records

Applicable Emission Limits & Compliance Monitoring Requirements

Table VII-C
S-8, Duct Burner

Type of Limit	Emission Limit Citation	EE # Y/N	Compliance Status	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
NO _x	40 CFR 60.44b(i)	Y	In Compliance	0.2 lb NO _x /MMBTU burned	(Exempt from monitoring per 40 CFR 60.48b(i))	N	
	BAAQMD Permit Condition Number 2878 part 3a	Y	In Compliance	≤ 42 ppmv @ 15% O ₂ dry, averaged over 3 hours in combined Gas Turbine/Duct Burner exhaust	BAAQMD Permit Condition 2878 part 4	C	CEM
	PSD permit part IX, C, 1	Y	In Compliance	42 ppmv @ 15% O ₂ averaged over 24 hours when burning natural gas	PSD permit part IX, E	C	CEM
Carbon Monoxide	BAAQMD Permit Condition Number 2878 part 5	Y	In Compliance	< Or equal to 150 tons per year from turbine and duct burner combined	BAAQMD Permit Condition Number 2878 part 13	C	CEM
Fuel usage	BAAQMD Permit Condition Number 2878 part 7	Y	In Compliance	520 MM cf combined fuel usage for duct burners and boilers (when operating per condition #2878, part 1b) per year	PSD permit part IX, G, 4	C	Fuel meter, records
	PSD permit part IX, G, 5	Y	In Compliance	520 MM cf natural gas in any calendar year	PSD permit part IX, G, 4	C	Fuel meter, records
Opacity	BAAQMD 6-301	Y	In Compliance	> Ringelmann No. 1 for no more than 3 min in any hour		N	

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Applicable Emission Limits & Compliance Monitoring Requirements

Table VII-C (continued)
 S-8, Duct Burner.

Type of Limit	Emission Limit Citation	Y/N	Compliance Status	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
FP	BAAQMD 6-310.3	Y	In Compliance	0.15 grain/dscf		N	
SO ₂	BAAQMD 9-1-301	N	In Compliance	GLC ¹ of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N	
	BAAQMD 9-1-302	Y	In Compliance	300 ppm (dry)		N	

¹ Ground Level Concentration

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Applicable Emission Limits & Compliance Monitoring Requirements

**Table VII-D
 S-9, Turbine Starting Engine**

Type of Limit	Emission Limit Citation	FE Y/N	Compliance Status	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N/M)	Monitoring Type
Opacity	BAAQMD 6-303.1	Y	In Compliance	>Ringelmann Nu. 2 for no more than 3 minutes in any hour.		N	
PP	BAAQMD 6-310	Y	In Compliance	0.15 grain/dscf		N	
	BAAQMD 6-310.3	Y	In Compliance	0.15 grain/dscf @ 6% O ₂		N	
SO ₂	BAAQMD 9-1-301	Y	In Compliance	GLC ¹ of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N	
Fuel Sulfur Content	BAAQMD 9-1-304	Y	In Compliance	Fuel sulfur content limit of 0.5% by weight	BAAQMD condition #21844 part 5	P	Fuel Certification
Hours of Operation	BAAQMD condition #21844 part 2		In Compliance	200 hours per year	BAAQMD condition #21844 part 3	C	Totalizing Counter

Applicable Emission Limits & Compliance Monitoring Requirements

Table VII-E
S-10 and S-11 Standby Generator Diesel Engines

Type of Limit	Emission Limit Citation	FE Y/N	Compliance Status	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N/M)	Monitoring Type
Opacity	BAAQMD 6-303.1	Y	In Compliance	> Ringelmann No. 2 for no more than 3 minutes in any hour		N	
FP	BAAQMD 6-310	Y	In Compliance	0.15 grain/dscf		N	
	BAAQMD 6-310.3	Y	In Compliance	0.15 grain/dscf @ 6% O ₂		N	
SO ₂	BAAQMD 9-1-301	Y	In Compliance	GLC ¹ of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N	
Fuel Sulfur Content	BAAQMD 9-1-304	Y	In Compliance	Fuel sulfur content limit of 0.5% by weight	BAAQMD condition #19698 part 5	P	Fuel Certification
Hours of Operation	BAAQMD condition #19698 part 2		In Compliance	100 hours per year discretionary operation	BAAQMD condition #19698 part 6	C	Totalizing Counter