

Delta Energy Center
 Title V CEMS Semi-Annual Monitoring Report
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Table VII – A
Applicable Limits and Compliance Monitoring Requirements
S-1, S-3, S-5 TURBINES
S-2, S-4, S-6 HEAT RECOVERY STEAM GENERATORS

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
NO _x	BAAQMD 9-3-303	N		125 ppm	BAAQMD 1-520.1	C	CEM	X	
	BAAQMD 9-9-301.2	N		0.15 lb/MW-hr or 5 ppmv	BAAQMD 9-9-501	C	CEM	X	
NO _x	SIP 9-9-301.3	N		9 ppmv @ 15% O ₂ , dry	SIP 9-9-501	C	CEM	X	
	NSPS, 40 CFR 60.44 (a)(4)	Y		0.2 lb/MMBtu, 30-day rolling average	40 CFR 60.48 (b) and BAAQMD condition #17154	C	CEM	X	
NO _x	NSPS, 40 CFR 60.332 (a)(1)	Y		75 ppmv, @ 15% O ₂ , dry	40 CFR 60.334(c) and BAAQMD Condition 17154, Part 39b	C	CEM	X	
		Y		None	40 CFR 75.10	C	CEM	X	
NO _x	BAAQMD condition #17154, part 22a	Y		19.2 lb/hr, for each turbine and HRSG combined, except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 39b	C	CEM	X	
NO _x	BAAQMD condition #17154, part 22a	Y		19.2 lb/hr, for each turbine and HRSG combined, except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 43	P/A	Source test at maximum load	X	

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								Yes	No
NO _x	BAAQMD condition #17154, part 22a	Y		0.00904 lb/MM BTU, for each turbine and HRSG combined, except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 39b	C	CEM	X	
NO _x	BAAQMD condition #17154, part 22a	Y		0.00904 lb/MM BTU, for each turbine and HRSG combined, except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 43	P/A	Source test at maximum load	X	
NO _x	BAAQMD condition #17154, part 22b	Y		2.5 ppmv, @ 15% O ₂ , dry, for each turbine and HRSG combined, 1-hr average except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 43	P/A	Source test at maximum load	X	
NO _x	BAAQMD condition #17154, part 22b	Y		2.5 ppmv, @ 15% O ₂ , dry, for each turbine and HRSG combined, 1-hr average except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 39b	C	CEM	X	
NO _x	BAAQMD condition #17154, part 23	Y		240 lb/turbine during start-up	BAAQMD condition #17154, part 39b	C	CEM	X	
	BAAQMD condition #17154, part 23	Y		80 lb/turbine during shutdown	BAAQMD condition #17154, part 39b	C	CEM	X	
	BAAQMD condition #17154, part 23	Y		300 lb/turbine during steam turbine cold start-up or combustor tuning period	BAAQMD condition #17154, part 39b	C	CEM	X	

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								Yes	No
NO _x	BAAQMD condition #17154, part 36a	Y		1990.8 lb/day for turbines and HRSGs combined	BAAQMD condition #17154, part 39b	C	CEM	X	
	BAAQMD condition #17154, part 37a	Y		240.2 ton/yr for turbines and HRSGs combined	BAAQMD condition #17154, part 39b	C	CEM	X	
CO	BAAQMD condition #17154, part 22c	Y		46.75 lb/hr, for each turbine and HRSG combined, except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 43	P/A	Source test at maximum and minimum load	X	
CO	BAAQMD condition #17154, part 22c	Y		46.75 lb/hr, for each turbine and HRSG combined, except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 39b	C	CEM	X	
	BAAQMD condition #17154, part 22c	Y		0.022 lb/MM BTU, for each turbine and HRSG combined, except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 43	P/A	Source test at maximum and minimum load	X	
	BAAQMD condition #17154, part 22c	Y		0.022 lb/MM BTU, for each turbine and HRSG combined, except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 39b	C	CEM	X	
CO	BAAQMD condition #17154, part 22d	Y		10 ppmv, @ 15% O ₂ , dry, for each turbine and HRSG combined, 3-hr average except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 39b	C	CEM	X	

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								Yes	No
CO	BAAQMD condition #17154, part 22d	Y		10 ppmv, @ 15% O ₂ , dry, for each turbine and HRSG combined, 3-hr average except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 43	P/A	Source test at maximum and minimum load	X	
CO	BAAQMD condition #17154, part 23	Y		2514 lb/turbine during start-up	BAAQMD condition #17154, part 39b	C	CEM	X	
CO	BAAQMD condition #17154, part 23	Y		902 lb/turbine during shutdown	BAAQMD condition #17154, part 39b	C	CEM	X	
	BAAQMD condition #17154, part 23	Y		9,750 lb/turbine during steam turbine cold start-up or combustor tuning period	BAAQMD condition #17154, part 39b	C	CEM	X	
CO	BAAQMD condition #17154, part 36b	Y		12,756.4 lb/day for turbines and HRSGs combined	BAAQMD condition #17154, part 39b	C	CEM	X	
CO	BAAQMD condition #17154, part 37b	Y		1,105.4 ton/yr for turbines and HRSGs combined	BAAQMD condition #17154, part 39b	C	CEM	X	
CO ₂		Y		None	40 CFR 75.10	C	fuel flow monitor and CO ₂ calculation	X	
SO ₂	BAAQMD 9-1-301	Y		GLC ¹ of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N		N/A	
	BAAQMD 9-1-302	Y		300 ppm (dry)		N		N/A	
	NSPS 40 CFR 60.43a (b)(2)			0.2 lb/MMBtu, 24 hr average except during startup, shutdown		N		N/A	

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								Yes	No
SO ₂	NSPS 40 CFR 60.333	Y		0.015% (vol) @ 15% O ₂ (dry) or total sulfur content of fuel less than or equal to 0.8% sulfur by weight (8,000 ppmw)	NSPS 40 CFR 60.334 (h) (3) (ii) and BAAQMD Condition 17154, Part 57	P/M	Fuel sulfur content testing	X	
SO ₂		Y		None	40 CFR 75.11, 40 CFR 75, Appendix D, part 2.3		Fuel measurements, calculations	X	
	BAAQMD condition #17154, part 14	Y		Fuel sulfur content of 1.0 gr/100 scf	BAAQMD condition #17154, part 57	P/M	Fuel testing	X	
	BAAQMD condition #17154, part 37e	Y		18.42 ton/yr for turbines and HRSGs combined	BAAQMD condition #17154, part 40	P/D	Fuel sulfur content testing, natural gas usage records, calculations	X	
Opacity	BAAQMD 6-1-301	N		> Ringelmann No. 1 for no more than 3 minutes in any hour		N		N/A	
Opacity	SIP 6-301	Y		> Ringelmann No. 1 for no more than 3 minutes in any hour		N		N/A	
FP	BAAQMD 6-1-310	N		0.15 grain/dscf		N		N/A	
FP	SIP 6-310	Y		0.15 grain/dscf		N		N/A	
	BAAQMD 6-1-310.3	N		0.15 grain/dscf @ 6% O ₂		N		N/A	
	SIP 6-310.3	Y		0.15 grain/dscf @ 6% O ₂		N		N/A	

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								Yes	No
Opacity	BAAQMD 6-1-304	N		During tube cleaning, Ringelmann No. 2 for 3 min/hr and 6 min/billion btu/24 hours		N		N/A	
Opacity	SIP 6-304	Y		During tube cleaning, Ringelmann No. 2 for 3 min/hr and 6 min/billion btu/24 hours		N		N/A	
PM ₁₀	BAAQMD condition #17154, part 22h	Y		9.0 lb/hr, for each turbine and HRSG combined	BAAQMD condition #17154, part 43	P/A	Source test at maximum load	X	
PM ₁₀	BAAQMD condition #17154, part 22h	Y		0.00424 lb/MM BTU, for each turbine and HRSG combined	BAAQMD condition #17154, part 43	P/A	Source test at maximum load	X	
PM ₁₀	BAAQMD condition #17154, part 36d	Y		648 lb/day for turbines and HRSGs combined	BAAQMD condition #17154, part 40	P/D	Records, calculations	X	
	BAAQMD condition #17154, part 37d	Y		118.26 ton/yr for turbines and HRSGs combined	BAAQMD condition #17154, part 40	P/D	Records, calculations	X	
POC	BAAQMD condition #17154, part 22f	Y		5.33 lb/hr (as CH ₄) for each turbine, and HRSG combined except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 43	P/A	Source test at maximum load	X	
POC	BAAQMD condition #17154, part 22f	Y		0.00251 lb/MM BTU (as CH ₄) for each turbine, and HRSG combined except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 43	P/A	Source test at maximum load	X	

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								Yes	No
	BAAQMD condition #17154, part 23	Y		48 lb/turbine during start-up	BAAQMD condition #17154, part 40	P/D	Records, calculations	X	
POC	BAAQMD condition #17154, part 23	Y		16 lb/turbine during shutdown	BAAQMD condition #17154, part 40	P/D	Records, calculations	X	
	BAAQMD condition #17154, part 23	Y		96 lb/turbine during steam turbine cold start-up or combustor tuning period	BAAQMD condition #17154, part 40	P/D	Records, calculations	X	
	BAAQMD condition #17154, part 36c	Y		478.2 lb/day (as CH ₄) for turbines and HRSGs combined	BAAQMD condition #17154, part 40	P/D	Records, calculations	X	
POC	BAAQMD condition #17154, part 37c	Y		64.68 ton/yr for turbines and HRSGs combined	BAAQMD condition #17154, part 40	P/D	Records, calculations	X	
NH ₃	BAAQMD condition #17154, Part 22e	N		10 ppmv, @ 15% O ₂ , dry, averaged over 3 hrs for each turbine and HRSG combined except during turbine startup, shutdown, steam turbine cold start-up, or combustor tuning period	BAAQMD condition #17154, part 39c	C	Ammonia injection rate monitor	X	
Formaldehyde	BAAQMD condition #17154, part 38a	N		5691 lb/yr for turbine and HRSGs combined	BAAQMD condition #17154, part 41	P/D	Records, calculations	X	
Formaldehyde	BAAQMD condition #17154, part 34a	N		5691 lb/yr for turbine and HRSGs combined	BAAQMD condition #17154, part 44	P/every two years on P-1, P-2, or P-3	Source test	X	
Benzene	BAAQMD condition #17154, part 38b	N		704 lb/yr for turbines, HRSGs boiler combined	BAAQMD condition #17154, part 41	P/D	Records, calculations	X	

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								Yes	No
	BAAQMD condition #17154, part 38b	N		704 lb/yr for turbines and HRSGs combined	BAAQMD condition #17154, part 45	P/every two years on P-1, P-2, or P-3	Source test	X	
Specified PAH's	BAAQMD condition #17154, Part 38c	N		120 lb/yr for turbines, HRSGs combined	BAAQMD condition #17154, part 41	P/D	Records, calculations	X	
	BAAQMD condition #17154, Part 38c	N		120 lb/yr for turbines and HRSGs combined	BAAQMD condition #17154, part 41	P/every two years on P-1, P-2, or P-3	Source test	X	
Heat input limit		Y		None	40 CFR 75.10	C	Fuel meter, firing monitor, calculations	X	
Heat input limit	BAAQMD condition #17154, part 15	Y		2,125 MM BTU/hr (HHV), 3-hr average for each Turbine and HRSG, total	BAAQMD condition #17154, part 39a	C	Fuel meter, firing monitor, calculations	X	
	BAAQMD condition #17154, part 16	Y		50,024 MM BTU/calendar day (HHV), for each Turbine and HRSG, total	BAAQMD condition #17154, part 39a	C	fuel meter, firing monitor, calculations	X	
Heat Input Limit	BAAQMD condition #17154, part 17	Y		53,188,532 MM BTU/yr (HHV) for S-1, S-3, S-5, Turbines and S-2, S-4, S-6 HRSGs combined	BAAQMD condition #17154, part 39a	C	fuel meter, firing monitor, calculations	X	
Steam turbine cold start-up or combustor tuning	BAAQMD condition #17154, part 24	Y		30 hours per year per turbine	BAAQMD condition #17154, part 62	P/H	records	X	

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Table VII – B
Applicable Limits and Compliance Monitoring Requirements
S-9, COOLING TOWER

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-1-301	N		> Ringelmann 1.0 for no more than 3 minutes in any hour		N		N/A	
Opacity	SIP 6-301	Y		> Ringelmann 1.0 for no more than 3 minutes in any hour		N		N/A	
FP	BAAQMD Regulation 6-1-310	N		0.15 gr/dscf		N		N/A	
FP	SIP Regulation 6-310	Y		0.15 gr/dscf		N		N/A	
Drift Rate	BAAQMD condition #17154, part 58	Y		0.0005%	BAAQMD condition #17154, part 59	P	Initial source test	X	
Total Dissolved Solids	BAAQMD condition #17154, part 58	Y		5233 ppmw (mg/l)	BAAQMD condition #17154, part 58	P/D	Sampling and testing of cooling tower water	X	

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Table VII – C
Applicable Limits and Compliance Monitoring Requirements
S-10, FIRE PUMP DIESEL ENGINE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD Regulation 6-1-303.1	N		Ringelmann 2.0 for 3 minutes in any hour		N		N/A	
Opacity	SIP Regulation 6-303.1	Y		Ringelmann 2.0 for 3 minutes in any hour		N		N/A	
FP	SIP Regulation 6-310	Y		0.15 gr/dscf		N		N/A	
FP	SIP 6-310	N		0.15 gr/dscf		N		N/A	
SO ₂	BAAQMD 9-1-301	Y		GLC of 0.5 ppm for 3 min. or 0.25 ppm for 60 min. or 0.05 ppm for 24 hours		N		N/A	
SO ₂	BAAQMD 9-1-304	Y		Sulfur Content ≤ 0.5% by weight		N		N/A	
Reliability Related Hours	BAAQMD 9-8-330	N		50 hours	9-8-502 9-8-530	P/E	Totalizing meter record keeping	X	
Reliability Related Hours	BAAQMD Condition #22851, part 1	N		34 hours per calendar year	BAAQMD Condition #22851, part 3, 4	P/E	Totalizing meter record keeping	X	

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Table VII – D
Applicable Limits and Compliance Monitoring Requirements
S-11, NATURAL GAS FIRED EMERGENCY GENERATOR

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-1-303.1	N		< Ringelmann 2.0, except for no more than 3 minutes in any hour		N		N/A	
Opacity	SIP 6-303.1	Y		< Ringelmann 2.0, except for no more than 3 minutes in any hour		N		N/A	
FP	BAAQMD Regulation 6-1-310	N		0.15 gr/dscf		N		N/A	
FP	SIP Regulation 6-310	Y		0.15 gr/dscf		N		N/A	
SO ₂	BAAQMD Regulation 9-1-301	Y		GLC of 0.5 ppm for 3 min. or 0.25 ppm for 60 min. or 0.05 ppm for 24 hours		N		N/A	
SO ₂	BAAQMD Regulation 9-1-302	Y		300 ppm (dry)		N		N/A	
Reliability Related Hours	BAAQMD 9-8-330	N	1/1/12	50 hours	9-8-502	P/E	Totalizing meter record keeping	X	
Reliability Related Hours	BAAQMD Condition #21609, part 1	Y		100 hours per calendar year	BAAQMD Condition #22231, part 2 and 3	P/E	Record keeping	X	