

Metcalf Energy Center, LLC

1 Blanchard Road
Coyote, CA 95013

July 13, 2023

TV Tracking #: 738

Director of Compliance and Enforcement
Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, CA 94105-2097
Attn: Title V Reports

1. RECEIVED IN 07/13/2023
ENFORCEMENT: _____

Re: Metcalf Energy Center #B2183
Title V CEMS Semi-Annual Monitoring Report
Reporting Period: January 1, 2023 – June 30, 2023

To Whom It May Concern:

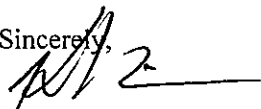
Enclosed is the Title V CEMS Semi-Annual Monitoring Report for the Metcalf Energy Center (“MEC”) for the reporting period from January 1, 2023 – June 30, 2023.

MEC is currently in intermittent compliance with the District CEMS regulations. MEC maintained intermittent compliance with the monitoring requirements listed in the Title V permit for MEC during this reporting period. Please refer to Appendix A for details.

By signing this report, I am certifying that based on information and belief formed after reasonable inquiry, the statements and information in the attached report are true, accurate, and complete, apart from one event.

If you have any questions or require additional information, do not hesitate to contact Rosemary Silva, EHS Specialist, at (408) 361-4954.

Sincerely,



Kevin Karwick
General Manager and
Designated Representative/Responsible Official
Metcalf Energy Center, LLC.

Enclosures: Title V Semi-Annual Report

cc: Region 9

EPA

Metcalf Energy Center
Title V CEMS Semi-Annual Monitoring Report
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Table VII - A
Applicable Limits and Compliance Monitoring Requirements

S-1, GAS TURBINE #1

S-2, GAS TURBINE #2

Type of Limit	Citation of Limit	FE Y/N	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
							Yes	No
NOx	BAAQMD 9-3-303	N	125 ppm	BAAQMD 1-520.1	C	CEM	X	
NOx	BAAQMD 9-9-301.1.3	N	9 ppmv @ 15% O2, dry	BAAQMD 9-9-501	C	CEM	X	
NOx	SIP 9-9-301.3	Y	9 ppmv @ 15% O2, dry	SIP 9-9-501	C	CEM	X	
NOx	BAAQMD 9-9-301.2	N	0.15 LB/MMBTU or 5 ppmv	BAAQMD 9-9-501	C	CEM	X	
NOx	NSPS, 40 CFR 60.332 (a)(1)	Y	75 ppmv @ 15% O2, dry, 4-hour rolling average	NSPS 40 CFR 60.334(c.)	C	CEM	X	
		Y	None	40 CFR 75.10	C	CEM	X	
NOx	BAAQMD condition #18310, part 20a	Y	19.2 lb./hr. for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, Part 27b	C	CEM	X	
NOx	BAAQMD condition #18310, part 20a	Y	19.2 lb./hr. for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, Part 31	P/A	Source Test at maximum load	X	
NOx	BAAQMD condition #18310, part 20a	Y	0.00904 lb./MM BTU for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, Part 27b	C	CEM	X	
NOx	BAAQMD condition #18310, part 20a	Y	0.00904 lb/MM BTU for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, Part 31	P/A	Source Test at maximum load	X	

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Type of Limit	Citation of Limit	FE Y/N	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
							Yes	No
NOx	BAAQMD condition #18310, part 20b	Y	2.5 ppmv, @ 15% O2, dry, for each turbine/HRSG powertrain, 1-hr average except during turbine startup and shutdown	BAAQMD condition #18310, Part 31	P/A	Source Test at maximum load	X	
NOx	BAAQMD condition #18310, part 20b	Y	2.5 ppmv, @ 15% O2, dry, for each turbine/HRSG powertrain, 1-hr average except during turbine startup and shutdown	BAAQMD condition #18310, Part 27b	C	CEM	X	
NOx	BAAQMD condition #18310, part 21	Y	240 lb./gas turbine start-up	BAAQMD condition #18310, Part 27b	C	CEM	X	
NOx	BAAQMD condition #18310, part 21	Y	480 lb./hr. during gas turbine cold start-up or combustor tuning period	BAAQMD condition #18310, Part 27b	C	CEM	X	
NOx	BAAQMD condition #18310, part 21	Y	80 lb./gas turbine shutdown	BAAQMD condition #18310, Part 27b	C	CEM	X	
NOx	BAAQMD condition #18310, part 24a	Y	1362.6 lb./day for S-1, S-3 Gas Turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, Part 27b	C	CEM	X	
NOx	BAAQMD condition #18310, part 25a	Y	123.4 ton/yr for S-1, S-3 Gas Turbines and S-2, S-4 HRSGs, combined (including emissions from commissioning period)	BAAQMD condition #18310, Part 27b	C	CEM	X	
CO	BAAQMD condition #18310, part 20c	Y	18.7 lb/hr, for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, Part 31	P/A	Source Test at maximum load and minimum load	X	
CO	BAAQMD condition #18310, part 20c	Y	18.7 lb/hr, for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, Part 27b	C	CEM	X	

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Type of Limit	Citation of Limit	FE Y/N	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
							Yes	No
CO	BAAQMD condition #18310, part 20d	Y	0.0088 lb/MM BTU for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, Part 31	P/A	Source Test at maximum load and minimum load	X	
CO	BAAQMD condition #18310, part 20d	Y	0.0088 lb/MM BTU for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, Part 27b	C	CEM	X	
CO	BAAQMD condition #18310, part 20d	Y	4 ppmv @ 15% O ₂ , dry, for each turbine/HRSG powertrain, 3-hr average, except during turbine startup and shutdown	BAAQMD condition #18310, Part 31	P/A	Source Test at maximum load and minimum load	X	
CO	BAAQMD condition #18310, part 20d	Y	4 ppmv @ 15% O ₂ , dry, for each turbine/HRSG powertrain, 3-hr average, except during turbine startup and shutdown	BAAQMD condition #18310, Part 27b	C	CEM	X ¹	
CO	BAAQMD condition #18310, part 20d	Y	4 ppmv @ 15% O ₂ , dry, for each turbine/HRSG powertrain, 3-hr average, except during turbine startup and shutdown	40 CFR 64.3 (b)(4)(ii)	At least 4 times per hour (CAM Plan)	CEM	X	
CO	BAAQMD condition #18310, part 21	Y	2,514 lb/gas turbine startup	BAAQMD condition #18310, Part 27b	C	CEM	X	
CO	BAAQMD condition #18310, part 21	Y	5028 lb/hr during gas turbine cold start-up or combustor tuning period	BAAQMD condition #18310, Part 27b	C	CEM	X	
CO	BAAQMD condition #18310, part 21	Y	902 lb/gas turbine shutdown	BAAQMD condition #18310, Part 27b	C	CEM	X	

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Type of Limit	Citation of Limit	FE Y/N	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
							Yes	No
CO	BAAQMD condition #18310, part 24b	Y	7,891.1 lb/day for S-1, S-3 gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, Part 27b	C	CEM	X	
CO	BAAQMD condition #18310, part 25b	Y	588 ton/yr for S-1, S-3 gas turbines and S-2, S-4 HRSGs, combined (includes emissions from commissioning period)	BAAQMD condition #18310, Part 27b	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		X	
SO ₂	BAAQMD 9-1-302	Y	300 ppm (dry)		N		X	
SO ₂	NSPS 40 CFR 60.333(a)	Y	0.015% (vol.) @ 15% O ₂ (dry)	NSPS 40 CFR 60.334(h)	N		X	
SO ₂	NSPS 40 CFR 60.333(b)	Y	Total sulfur content of fuel not to exceed 0.8 percent by weight (8000 ppmw)	NSPS 40 CFR 60.334(h)(3)(i) and BAAQMD condition #18310, Part 45	P/M	Fuel sulfur content testing	X	
SO ₂		Y	None	40 CFR 75.11, 40 CFR 75, Appendix D, part 2.3	P/A	Fuel measurements , calculations	X	
SO ₂	BAAQMD condition #18310, part 20g	Y	1.28 lb/hr, for each turbine/HRSH powertrain	BAAQMD condition #18310, part 31	P/A	Source test at maximum load	X	
SO ₂	BAAQMD condition #18310, part 20g	Y	1.28 lb/hr, for each turbine/HRSH powertrain	BAAQMD condition #18310, part 28	P/D	Records, calculations	X	

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							Yes	No
SO2	BAAQMD condition #18310, part 20g	Y	0.0006lb/MM BTU, for each turbine/HRSG powertrain	BAAQMD condition #18310, part 31	P/A	Source test at maximum load	X	
SO2	BAAQMD condition #18310, part 20g	Y	0.0006lb/MM BTU, for each turbine/HRSG powertrain	BAAQMD condition #18310, part 28	P/D	Records, calculations	X	
SO2	BAAQMD condition #18310, part 24e	Y	57.9 lb/day for each turbine/HRSG powertrain	BAAQMD condition #18310, part 28	P/D	Records, calculations	X	
SO2	BAAQMD condition #18310, part 25e	Y	10.6 ton /yr for each turbine/HRSG powertrain (includes emissions from commissioning period)	BAAQMD condition #18310, part 28	P/D	Records, calculations	X	
Opacity	BAAQMD 6-1-301	N	> Ringelmann No. 1 for no more than 3 minutes in any hour		N		X	
Opacity	SIP 6-301	Y	> Ringelmann No. 1 for no more than 3 minutes in any hour		N		X	
FP	BAAQMD 6-1-310.3	N	0.15 grain/dscf @ 6% O2		N		X	
FP	SIP 6-310.3	Y	0.15 grain/dscf @ 6% O2		N		X	
PM ₁₀	BAAQMD condition #18310, part 20h	Y	9 lb/hr, for each turbine/HRSG powertrain	BAAQMD condition #18310, part 31	P/A	Source test at maximum load	X	
PM ₁₀	BAAQMD condition #18310, part 20h	Y	0.00452 lb/MM BTU, for each turbine/HRSG powertrain	BAAQMD condition #18310, part 31	P/A	Source test at maximum load	X	
PM ₁₀	BAAQMD condition #18310, part 24d	Y	510 lb/day for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 28	P/D	Records, calculations	X	

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							Yes	No
PM ₁₀	BAAQMD condition #18310, part 25d	Y	83.34 ton/yr for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined (including emissions from commissioning period)	BAAQMD condition #18310, part 28	P/D	Records, calculations	X	
POC	BAAQMD condition #18310, part 20f	Y	2.7 lb/hr (as CH ₄) for each turbine/HRSG powertrain except during turbine startup and shut down	BAAQMD condition #18310, part 31	P/A	Source test at maximum load	X	
POC	BAAQMD condition #18310, part 20f	Y	0.00126 lb/MM BTU (as CH ₄) for each turbine/HRSG powertrain except during turbine startup and shut down	BAAQMD condition #18310, part 31	P/A	Source test at maximum load	X	
POC	BAAQMD condition #18310, part 21	Y	48 lb/gas turbine startup	BAAQMD condition #18310, part 28	P/D	Records, calculations	X	
POC	BAAQMD condition #18310, part 21	Y	16 lb/gas turbine shutdown	BAAQMD condition #18310, part 28	P/D	Records, calculations	X	
POC	BAAQMD condition #18310, part 21	Y	96 lb/hr during gas turbine cold start up or combustor tuning period	BAAQMD condition #18310, part 28	P/D	Records, calculations	X	
POC	BAAQMD condition #18310, part 24c	Y	230.2 lb/day (as CH ₄) for S-1, S-3 gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 28	P/D	Records, calculations	X	
POC	BAAQMD condition #18310, part 25c	Y	28 ton/yr) for S-1, S-3 gas turbines and S-2, S-4 HRSGs, combined (including emissions from commissioning period)	BAAQMD condition #18310, part 28	P/D	Records, calculations	X	

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							Yes	No
NH ₃	BAAQMD condition #18310, part 20e	N	5 ppmv, @ 15% O ₂ dry, averaged over 3 hrs for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, part 27c	C	Ammonia injection rate monitor	X	
Formaldehyde	BAAQMD condition #18310, part 26a	N	3796 lb/yr for S-1, S-3 gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 29	P/D	Records, calculations	X	
Formaldehyde	BAAQMD condition #18310, part 26a	N	3796 lb/yr for S-1, S-3 gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 33	P/every two years on P-1 or P-2	Source Test		X ¹
Benzene	BAAQMD condition #18310, part 26b	N	480 lb/yr for S-1, S-3 gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 29	P/D	Records, calculations	X	
Benzene	BAAQMD condition #18310, part 26b	N	480 lb/yr for S-1, S-3 gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 33	P/every two years on P-1 or P-2	Source Test		X ¹
Specific PAH Compounds	BAAQMD condition #18310, part 26c	N	22.8 lb/yr for S-1, S-3 gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 29	P/D	Records, calculations	X	
Specific PAH Compounds	BAAQMD condition #18310, part 26c	N	22.8 lb/yr for S-1, S-3 gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 33	P/every two years on P-1 or P-2	Source Test		X ¹
Heat input limit	BAAQMD condition #18310, part 14	Y	2,124 MM BTU/hr (HHV), 3-hr average for each turbine/HRSG powertrain	BAAQMD condition #18310, part 27a	C	Fuel meter, firing monitor, calculations	X	

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Type of Limit	Citation of Limit	FE Y/N	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
							Yes	No
Heat input limit	BAAQMD condition #18310, part 15	Y	49,908 MM BTU/calendar day (HHV), for each turbine/HRSG powertrain	BAAQMD condition #18310, part 27a	C	Fuel meter, firing monitor, calculation ² s	X	
Heat input limit	BAAQMD condition #18310, part 16	Y	35,274,060 MM BTU/yr (HHV) for S-1, S-3 gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 27a	C	Fuel meter, firing monitor, calculations	X	
Cold Start-Up, Combustor Tuning Firing Limit	BAAQMD condition #18310, part 48	Y	30 firing hours per year for S-1 and S-3 gas turbines, combined for purposes of cold start-up or combustor tuning	BAAQMD condition #18310, part 49	P/E	Recordkeeping	X	

¹ Due to mechanical issues with the steam turbine that required an extended outage period, the Facility was not able to conduct the required biennial testing for toxics, per Title V Condition 33 or the 40 CFR required RATA testing by the due date of June 30, 2023. Refer to Appendix A for details.

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Table VII - B
Applicable Limits and Compliance Monitoring Requirements
S-3, HEAT RECOVERY STEAM GENERATOR #1
S-4, HEAT RECOVERY STEAM GENERATOR #2

Type of Limit	Citation of Limit	FE Y/N	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
							Yes	No
NOx	BAAQMD 9-9-301.1.3	N	9 ppmv @ 15% O2, dry	BAAQMD 9-9-501	C	CEM	X	
NOx	SIP 9-9-301.3	Y	9 ppmv @ 15% O2, dry	SIP 9-9-501	C	CEM	X	
NOx	BAAQMD 9-9-301.2	N	0.15 LB/MMBTU or 5 ppmv	BAAQMD 9-9-501	C	CEM	X	
NOx	NSPS, 40 CFR 60.44b (a)(4)(i)	Y	0.2 lb/ MM BTU except, during start-up, shutdown or malfunction	NSPS 40 CFR 60.48b (b)(2) and BAAQMD Condition #18310, part 27b	C	CEM	X	
NOx	NSPS, 40 CFR 60.332 (a)(1)	Y	75 ppmv @ 15% O2, dry, 4-hour rolling average	NSPS 40 CFR 60.334(c.) and BAAQMD Condition #18310, part 27b	C	CEM	X	
NOx		Y	None	40 CFR 75.10	C	CEM	X	
NOx	BAAQMD condition #18310, part 20a	Y	19.2 lb/hr for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, Part 27b	C	CEM	X	
NOx	BAAQMD condition #18310, part 20a	Y	19.2 lb/hr for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, Part 31	P/A	Source Test at maximum load	X	
NOx	BAAQMD condition #18310, part 20a	Y	0.00904 lb/MM BTU for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, Part 27b	C	CEM	X	

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Type of Limit	Citation of Limit	FE Y/N	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
							Yes	No
NOx	BAAQMD condition #18310, part 20a	Y	0.00904 lb/MM BTU for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, Part 31	P/A	Source Test at maximum load	X	
NOx	BAAQMD condition #18310, part 20b	Y	2.5 ppmv, @ 15% O2, dry, for each turbine/HRSG powertrain, 1-hr average except during turbine startup and shutdown	BAAQMD condition #18310, Part 31	P/A	Source Test at maximum load	X	
NOx	BAAQMD condition #18310, part 20b	Y	2.5 ppmv, @ 15% O2, dry, for each turbine/HRSG powertrain, 1-hr average except during turbine startup and shutdown	BAAQMD condition #18310, Part 27b	C	CEM	X	
NOx	BAAQMD condition #18310, part 24a	Y	1362.6 lb/day for S-1, S-3 Gas Turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, Part 27b	C	CEM	X	
NOx	BAAQMD condition #18310, part 25a	Y	123.4 ton/yr for S-1, S-3 Gas Turbines and S-2, S-4 HRSGs, combined (including emissions from commissioning period)	BAAQMD condition #18310, Part 27b	C	CEM	X	
CO	BAAQMD condition #18310, part 20c	Y	18.7 lb/hr, for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, Part 31	P/A	Source Test at maximum load and minimum load	X	
CO	BAAQMD condition #18310, part 20c	Y	18.7 lb/hr, for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, Part 27b	C	CEM	X	
CO	BAAQMD condition #18310, part 20d	Y	0.0088 lb/MM BTU for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, Part 31	P/A	Source Test at maximum load and minimum load	X	

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							Yes	No
CO	BAAQMD condition #18310, part 20d	Y	0.0088 lb/MM BTU for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, Part 27b	C	CEM	X	
CO	BAAQMD condition #18310, part 20d	Y	4 ppmv @ 15% O ₂ , dry, for each turbine/HRSG powertrain, 3-hr average, except during turbine startup and shutdown	BAAQMD condition #18310, Part 31	P/A	Source Test at maximum load and minimum load	X	
CO	BAAQMD condition #18310, part 20d	Y	4 ppmv @ 15% O ₂ , dry, for each turbine/HRSG powertrain, 3-hr average, except during turbine startup and shutdown	BAAQMD condition #18310, Part 27b	C	CEM	X	
CO	BAAQMD condition #18310, part 24b	Y	7,891.1 lb/day for S-1, S-3 gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, Part 27b	C	CEM	X	
CO	BAAQMD condition #18310, part 25b	Y	588 ton/yr for S-1, S-3 gas turbines and S-2, S-4 HRSGs, combined (includes emissions from commissioning period)	BAAQMD condition #18310, Part 27b	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		X	
SO ₂	BAAQMD 9-1-302	Y	300 ppm (dry)		N		X	
SO ₂	NSPS 40 CFR 60.333(a)	Y	0.015% (vol.) @ 15% O ₂ (dry)	NSPS 40 CFR 60.334(h)	N		X	

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							Yes	No
SO ₂	NSPS 40 CFR 60.333(b)	Y	Total sulfur content of fuel not to exceed 0.8 percent by weight (8000 ppmw)	NSPS 40 CFR 60.334(h)(3)(ii) and BAAQMD condition #18310, Part 45	P/M	Fuel sulfur content testing	X	
SO ₂		Y	None	40 CFR 75.11, 40 CFR 75, Appendix D, part 2.3	P/A	Fuel measurements, calculations	X	
SO ₂	BAAQMD condition #18310, part 20g	Y	1.28 lb/hr, for each turbine/HRSH powertrain	BAAQMD condition #18310, part 31	P/A	Source test at maximum load	X	
SO ₂	BAAQMD condition #18310, part 20g	Y	1.28 lb/hr, for each turbine/HRSH powertrain	BAAQMD condition #18310, part 28	P/D	Records, calculations	X	
SO ₂	BAAQMD condition #18310, part 20g	Y	0.0006lb/MM BTU, for each turbine/HRSG powertrain	BAAQMD condition #18310, part 31	P/A	Source test at maximum load	X	
SO ₂	BAAQMD condition #18310, part 20g	Y	0.0006lb/MM BTU, for each turbine/HRSG powertrain	BAAQMD condition #18310, part 28	P/D	Records, calculations	X	
SO ₂	BAAQMD condition #18310, part 24e	Y	57.9 lb/day for each turbine/HRSG powertrain	BAAQMD condition #18310, part 28	P/D	Records, calculations	X	
SO ₂	BAAQMD condition #18310, part 25e	Y	10.6 ton /yr for each turbine/HRSG powertrain (includes emissions from commissioning period)	BAAQMD condition #18310, part 28	P/D	Records, calculations	X	
Opacity	BAAQMD 6-1-301	N	> Ringelmann No. 1 for no more than 3 minutes in any hour		N		X	
Opacity	SIP 6-301	Y	> Ringelmann No. 1 for no more than 3 minutes in any hour		N		X	

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Type of Limit	Citation of Limit	FE Y/N	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
							Yes	No
FP	BAAQMD 6-1-310.3	N	0.15 grain/dscf @ 6% O2		N		X	
FP	SIP 6-310.3	Y	0.15 grain/dscf @ 6% O2		N		X	
PM	NSPS 40 CFR 60.42a (b)	Y	< 20% opacity, 6-minute average, except one six-minute period/hr up to 27% opacity		N		X	
PM ₁₀	BAAQMD condition #18310, part 20h	Y	9 lb/hr, for each turbine/HRSG powertrain	BAAQMD condition #18310, part 31	P/A	Source test at maximum load	X	
PM ₁₀	BAAQMD condition #18310, part 20h	Y	0.00452 lb/MM BTU, for each turbine/HRSG powertrain	BAAQMD condition #18310, part 31	P/A	Source test at maximum load	X	
PM ₁₀	BAAQMD condition #18310, part 24d	Y	510 lb/day for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 24	P/D	Records, calculations	X	
PM ₁₀	BAAQMD condition #18310, part 25d	Y	83.34 ton/yr for S-1, S-3 Gas turbines and S-2, S-4 HRSGs, combined (including emissions from commissioning period)	BAAQMD condition #18310, part 25	P/D	Records, calculations	X	
POC	BAAQMD condition #18310, part 20f	Y	2.7 lb/hr (as CH ₄) for each turbine/HRSG powertrain except during turbine startup and shut down	BAAQMD condition #18310, part 31	P/A	Source test at maximum load	X	
POC	BAAQMD condition #18310, part 20f	Y	0.00126 lb/MM BTU (as CH ₄) for each turbine/HRSG powertrain except during turbine startup and shut down	BAAQMD condition #18310, part 31	P/A	Source test at maximum load	X	
POC	BAAQMD condition #18310, part 24c	Y	230.2 lb/day (as CH ₄) for S-1, S-3 gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 28	P/D	Records, calculations	X	

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Type of Limit	Citation of Limit	FE Y/N	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
							Yes	No
POC	BAAQMD condition #18310, part 25c	Y	28 ton/yr) for S-1, S-3 gas turbines and S-2, S-4 HRSGs, combined (including emissions from commissioning period)	BAAQMD condition #18310, part 28	P/D	Records, calculations	X	
NH ₃	BAAQMD condition #18310, part 20e	N	5 ppmv, @ 15% O ₂ dry, averaged over 3 hrs for each turbine/HRSG powertrain, except during turbine startup and shutdown	BAAQMD condition #18310, part 27c	C	Ammonia injection rate monitor	X	
Formaldehyde	BAAQMD condition #18310, part 26a	N	3796 lb/yr for S-1, S-3 gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 29	P/D	Records, calculations	X	
Formaldehyde	BAAQMD condition #18310, part 26a	N	3796 lb/yr for S-1, S-3 gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 33	P/every two years on P-1 or P-2	Source Test		X ¹
Benzene	BAAQMD condition #18310, part 26b	N	480 lb/yr for S-1, S-3 gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 29	P/D	Records, calculations	X	
Benzene	BAAQMD condition #18310, part 26b	N	480 lb/yr for S-1, S-3 gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 33	P/every two years on P-1 or P-2	Source Test		X ¹
Specific PAH Compounds	BAAQMD condition #18310, part 26c	N	22.8 lb/yr for S-1, S-3 gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 29	P/D	Records, calculations	X	

Specific PAH Compounds	BAAQMD condition #18310, part 26c	N	22.8 lb/yr for S-1, S-3 gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 33	P/every two years on P-1 or P-2	Source Test		X ¹
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¹ Due to mechanical issues with the steam turbine that required an extended outage period, the Facility was not able to conduct the required biennial testing for toxics, per Title V Condition 33 or the 40 CFR required RATA testing by the due date of June 30, 2023. Refer to Appendix A for details.

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Heat input limit	BAAQMD condition #18310, part 14	Y	2,124 MM BTU/hr (HHV), 3-hr average for each turbine/HRSG powertrain	BAAQMD condition #18310, part 27a	C	Fuel meter, firing monitor, calculations	X	
Heat input limit	BAAQMD condition #18310, part 15	Y	49,908 MM BTU/calendar day (HHV), for each turbine/HRSG powertrain	BAAQMD condition #18310, part 27a	C	Fuel meter, firing monitor, calculations	X	
Heat input limit	BAAQMD condition #18310, part 16	Y	35,274,060 MM BTU/yr (HHV) for S-1, S-3 gas turbines and S-2, S-4 HRSGs, combined	BAAQMD condition #18310, part 27a	C	Fuel meter, firing monitor, calculations	X	
Prohibited firing	BAAQMD condition #18310, part 17	Y	Each HRSG duct burner may not be fired unless its associated gas turbine is being fired	BAAQMD condition #18310, part 27a	C	Fuel meter, firing monitor, calculations	X	

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Table VII – C
Applicable Limits and Compliance Monitoring Requirements
S-5 COOLING TOWER

Type of Limit	Citation of Limit	FE Y/N	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
							Yes	No
Opacity	BAAQMD 6-1-301	N	>Ringelmann No.1 for no more than 3 minutes in any hour		N		X	
FP	BAAQMD 6-1-310	N	0.15 gr/dscf		N		X	
Opacity	SIP 6-301	Y	>Ringelmann No.1 for no more than 3 minutes in any hour		N		X	
FP	SIP 6-310	Y	0.15 gr/dscf		N		X	
Drift Rate	BAAQMD Condition #18310, part 46	Y	0.0005%	BAAQMD Condition #18310, part 46	P	Initial Source Test	X	
Total Dissolved Solids	BAAQMD Condition #18310, part 46	Y	5438 ppmw (mg/l)	BAAQMD Condition #18310, part 46	P/D	Sampling and Testing of cooling tower water	X	

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Table VII – D
Applicable Limits and Compliance Monitoring Requirements
S-6 STATIONARY STANDBY GENERATOR SET

Type of Limit	Citation of Limit	FE Y/N	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
							Yes	No
Opacity	BAAQMD 6-1-301	N	>Ringelmann No.1 for no more than 3 minutes in any hour		N		SOURCE NOT COMMISSIONED	
Opacity	SIP 6-301	Y	>Ringelmann No.1 for no more than 3 minutes in any hour		N			
FP	BAAQMD 6-1-310.3	N	0.15 gr/dscf @ 6% O2		N			
FP	SIP 6-310.3	Y	0.15 gr/dscf @ 6% O2		N			
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			
SO ₂	BAAQMD 9-1-302	Y	300 ppm (dry)		N			
Heat Input Limit	BAAQMD Condition #22231 part 1	Y	14.1 MM BTU/hr		N			
Reliability Related activities	BAAQMD Condition #22231 part 2	Y	100 hours per calendar year	BAAQMD Condition #22231-part 6	P/E	Recordkeeping		
NO _x , CO and POC	BAAQMD Condition #22231 part 3	Y	1.0 g NO _x /bhp-hr 2.75 g CO/bhp-hr 1.0 g POC/bhp-hr		N			

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Table VII – E
Applicable Limits and Compliance Monitoring Requirements
S-7 FIRE PUMP DIESEL ENGINE

Type of Limit	Citation of Limit	FE Y/N	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
							Yes	No
Opacity	BAAQMD 6-1-301	N	>Ringelmann No.2 for no more than 3 minutes in any hour		N		X	
Opacity	SIP 6-301	Y	>Ringelmann No.2 for no more than 3 minutes in any hour		N		X	
FP	BAAQMD 6-1-310.3	N	0.15 gr/dscf @ 6% O2		N		X	
FP	SIP 6-310.3	Y	0.15 gr/dscf @ 6% O2		N		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		X	
Fuel Sulfur Content	BAAQMD 9-1-304	Y	Sulfur Content ≤ 0.5% by weight		N		X	
SO ₂	BAAQMD Condition #19610, part 39	N	Sulfur content of fuel less than 0.05% by weight	BAAQMD Condition #19610, part 39	P/E		X	
Reliability Related activities	BAAQMD Condition #21917 part 1	Y	30 hours per calendar year	BAAQMD Condition #21917 part 2, 3	P/E	Totalizing Meter, record keeping	X	

Appendix A

July 7, 2023

VIA EMAIL DELIVERY

Director, Enforcement and Compliance Division
Bay Area Air Quality Management District, Suite
600 375 Beale Street
San Francisco, CA 94105
Attn: Jeffrey Gove
jgove@baaqmd.gov

Director, Air Division (Attn: AIR-5)
U.S. Environmental Protection
Agency 75 Hawthorne St.
San Francisco, CA 94105
R9.aeo@epa.gov

**RE: Metcalf Energy Center, LLC., Permit No. 18136
Title V – 10- and 30-Day Deviation Follow-Up Report**

Dear Mr. Gove,

In accordance with the Major Facility Review Permit (Title V Permit) for the Metcalf Energy Center (the "Facility"), this letter is to advise you of an instance of potential non-compliance as required by Section I. F. Monitoring Reports, of the Title V Permit, which requires the reporting of all non-compliance instances of the Title V Permit in writing within 10 days. It is also intended to satisfy the 30-day follow-up reporting requirement as required by Section I.F. of the Title V Permit.

Due to mechanical issues with the steam turbine that required an extended outage period, the Facility was not able to conduct the required biennial testing for toxics, per Title V Condition 33 or the 40 CFR required RATA testing by the due date of June 30, 2023.

Event Description

On May 7, 2023, the Facility experienced a mechanical issue with the steam turbine, which required an extended outage to repair.

On May 10, 2023, the Facility notified BAAQMD via email, that the testing previously scheduled for the week of June 6, 2023 would need to be postponed and could not be completed until the steam turbine was returned to service. At that time, the Facility was unsure when operations would resume, but estimated a June 30th return to service and tentatively rescheduled the testing for mid-July.

The repairs to the steam turbine were completed earlier than expected and the Facility returned to normal operations on June 23, 2023.

Corrective Actions

That testing has been confirmed for July 17, 2023 to July 22, 2023.

Compliance Status

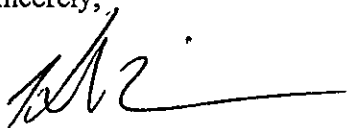
The facility is currently in compliance with the remaining Title V Conditions.

Certification

As a Responsible Official, I certify that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

If you have any questions or require additional information, please contact Rosemary Silva at (408) 361-4954 or via email at silvaro@calpine.com.

Sincerely,



Kevin Karwick
General Manager
Metcalf Energy Center, LLC

Cc:	Xuna Cai	BAAQMD
	Anwar Ali	CEC
	Jessica Grossman	Sr. Counsel, Calpine
	David Williams	EHS Manager, Calpine