## Russell City Energy Company, LLC

717 Texas Avenue **Suite 1000** Houston, TX 77002

July 27, 2023

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

TV Tracking #: 756

1. D RECEIVED IN 07/27/2023 ENFORCEMENT:\_

Re: **Title V CEMS Semi-Annual Monitoring Report** Reporting Period: January 1, 2023 – June 30, 2023 Russell City Energy Center-Plant Number 18136

To Whom it May Concern:

Enclosed is the Title V CEMS Semi-Annual Compliance Monitoring Report for the Russell City Energy Center (RCEC).

- Per RCA ID No. 08Q16, notification was provided on an inoperative ammonia flow meter used to calculate ammonia slip.
- Per RCA ID No. 08Q83, notification was provided on a NOx emission exceedance during start-up.

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

If you have any questions or require additional information, please contact Hal McCutchan, EHS Specialist at (925) 705-9691.

Sincerely,

DocuSigned by:

Jason Jin 7428634CB0674C0... Jason Jin

Authorized Signatory and Plant Manager

Russell City Energy Center

Facility Name:Russell City Energy Company, LLC.Facility #:B8136Reporting Period:January 1, 2023 to June 30, 2023Page:1 of 22

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

Type of	Citation of	FE	Future		Monitoring	Monitoring	Monitoring	Comp	oliance
Limit	Limit	Y/N	Effective Date	Limit	Requirement Citation	Frequency (P/C/N)	Туре	Yes	No
NOx	BAAQMD 9-3-303	N		125 ppm	BAAQMD 1-520.1	С	CEM	X	
NOx	BAAQMD 9-9-301.1.3	Y		9 ppmv @ 15% O2, dry	BAAQMD 9-9-501	С	CEM	X	
NOx	BAAQMD 9-9- 301.2	N		0.15 lb/MW-hr or 5 ppmv	BAAQMD 9-9-501	С	CEM	X	
NOx	SIP 9-9-301.3	Y		9 ppmv @ 15% O <sub>2</sub> , dry	BAAQMD 9-9-501	С	CEM	X	
NOx	40 CFR 60 Subpart KKKK 60.4320(a) Table 1	Y		15 ppm at 15% O2 or 0.43 lb/MW-hr	40 CFR 60 Subpart KKKK 60.4340(b)(1)	С	СЕМ	X	
NOx		Y		None	40 CFR 75.10	С	CEM	X	
NOx	BAAQMD condition #23763, part 19a	Y		16.5 lb/hr, for each turbine and HRSG combined, except during turbine startup, shutdown, combustor tuning operation, commissioning activities for black start capability, or black start emergency operations.	BAAQMD condition #23763, part 26b	C	CEM	X	
NOx	BAAQMD condition #23763, part 19a	Y		16.5 lb/hr, for each turbine and HRSG combined, except during turbine startup, shutdown, combustor tuning operation, commissioning activities for black start capability, or black start emergency operations.	BAAQMD condition #23763, part 30	P/A	Source test at maximum load	X	

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Type of	Citation of	FE	Future	T*4	Monitoring	Monitoring	Monitoring	Comp	liance
Limit	Limit	Y/N	Effective Date	Limit	Requirement Citation	Frequency (P/C/N)	Туре	Yes	No
NOx	Federal PSD Permit condition #26117, part 19a	Y		16.5 lb/hr, for each turbine and HRSG combined, except during turbine startup, shutdown, combustor tuning operation, commissioning activities for black start capability, or black start emergency operations.	Federal PSD Permit condition #26117, part 26b	С	CEM	Х	
NOx	Federal PSD Permit condition #26117, part 19a	Y		16.5 lb/hr, for each turbine and HRSG combined, except during turbine startup, shutdown, combustor tuning operation, commissioning activities for black start capability, or black start emergency operations.	Federal PSD Permit condition #26117, part 30	P/A	Source test at maximum load	Х	
NOx	BAAQMD condition #23763, part 19a	Y		0.00735 lb/MM BTU, for each turbine and HRSG combined, except during turbine startup, shutdown, combustor tuning operation, commissioning activities for black start capability, or black start emergency operations.	BAAQMD condition #23763, part 26b	C	СЕМ	X	
NOx	BAAQMD condition #23763, part 19a	Y		0.00735 lb/MM BTU, for each turbine and HRSG combined, except during turbine startup, shutdown, combustor tuning operation, commissioning activities for black start capability, or black start emergency operations.	BAAQMD condition #23763, part 30	P/A	Source test at maximum load	X	
NOx	Federal PSD Permit condition #26117, part 19a	Y		0.00735 lb/MM BTU, for each turbine and HRSG combined, except during turbine startup, shutdown, combustor tuning operation, commissioning activities for black start capability, or black start emergency operations.	Federal PSD Permit condition #26117, part 26b	С	CEM	Х	

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Type of	Citation of	FE	Future	<b>T.</b>	Monitoring	Monitoring	Monitoring	Comp	liance
Limit	Limit	Y/N	Effective Date	Limit	Requirement Citation	Frequency (P/C/N)	Туре	Yes	No
NOx	Federal PSD Permit condition #26117, part 19a	Y		0.00735 lb/MM BTU, for each turbine and HRSG combined, except during turbine startup, shutdown, combustor tuning operation, commissioning activities for black start capability, or black start emergency operations.	Federal PSD Permit condition #26117, part 30	P/A	Source test at maximum load	Х	
NOx	BAAQMD condition #23763, part 19b	Y		2.0 ppmv, @ 15% O <sub>2</sub> , dry, for each turbine and HRSG combined, 1-hr average except during turbine startup, shutdown, combustor tuning operation, commissioning activities for black start capability, or black start emergency operations.	BAAQMD condition #23763, part 26b	С	CEM	X	
NOx	BAAQMD condition #23763, part 19b	Y		2.0 ppmv, @ 15% O <sub>2</sub> , dry, for each turbine and HRSG combined, 1-hr average except during turbine startup, shutdown, combustor tuning operation, commissioning activities for black start capability, or black start emergency operations.	BAAQMD condition #23763, part 30	P/A	Source test at maximum load	X	
NOx	Federal PSD Permit condition #26117, part 19b	Y		2.0 ppmv, @ 15% O <sub>2</sub> , dry, for each turbine and HRSG combined, 1-hr average except during turbine startup, shutdown, combustor tuning operation, commissioning activities for black start capability, or black start emergency operations.	Federal PSD Permit condition #26117, part 26b	С	СЕМ	X	

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Type of	Citation of	FE	Future		Monitoring	Monitoring	Monitoring	Compliance	
Limit	Limit	Y/N	Effective Date	Limit	Requirement Citation	Frequency (P/C/N)	Туре	Yes	No
NOx	Federal PSD Permit condition #26117, part 19b	Y		2.0 ppmv, @ 15% O <sub>2</sub> , dry, for each turbine and HRSG combined, 1-hr average except during turbine startup, shutdown, combustor tuning operation, commissioning activities for black start capability, or black start emergency operations.	Federal PSD Permit condition #26117, part 30	P/A	Source test at maximum load	X	
NOx	BAAQMD condition #23763, part 20	Y		95 lb/turbine during hot start-up	BAAQMD condition #23763, part 26	P/D	Records, calculations	X	
NOx	Federal PSD Permit condition #26117, part 20	Y		95 lb/turbine during hot start-up	Federal PSD Permit condition #26117, part 26	P/D	Records, calculations	X	
NOx	BAAQMD condition #23763, part 20	Y		40 lb/turbine during shutdown	BAAQMD condition #23763, part 26	P/D	Records, calculations	X	
NOx	Federal PSD Permit condition #26117, part 20	Y		40 lb/turbine during shutdown	Federal PSD Permit condition #26117, part 26	P/D	Records, calculations	X	
NOx	BAAQMD condition #23763, part 20	Y		480 lb/turbine during cold start-up or combustor tuning operation	BAAQMD condition #23763, part 26	P/D	Records, calculations	X	
NOx	Federal PSD Permit condition #26117, part 20	Y		480 lb/turbine during cold start-up or combustor tuning operation	Federal PSD Permit condition #26117, part 26	P/D	Records, calculations	X	
NOx	BAAQMD condition #23763, part 20	Y		125 lb/turbine during warm start-up	BAAQMD condition #23763, part 26	P/D	Records, calculations		$X^1$

 $<sup>^{1}</sup>$  Per RCA ID No. 08Q83, notification was made on a NOx emission exceedance during start-up.

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Type of	Citation of	FE	Future	T	Monitoring	Monitoring	Monitoring	Comp	liance
Limit	Limit	Y/N	Effective Date	Limit	Requirement Citation	Frequency (P/C/N)	Туре	Yes	No
NOx	Federal PSD Permit condition #26117, part 20	Y		125 lb/turbine during warm start-up	Federal PSD Permit condition #26117, part 26	P/D	Records, calculations		X <sup>1</sup>
NO <sub>x</sub>	BAAQMD condition #23763, part 22a	Y		1,453 lb/day for turbines, HRSGs, and fire pump diesel engine, combined, including turbine startup, shutdown, and combustor tuning	BAAQMD condition #23763, part 26	C	CEM	X	
NOx	Federal PSD Permit condition #26117, part 22a	Y		1,453 lb/day for turbines, HRSGs, and fire pump diesel engine, combined, including turbine startup, shutdown, and combustor tuning	Federal PSD Permit condition #26117, part 26	С	CEM	X	
NO <sub>x</sub>	BAAQMD condition #23763, part 22b	Y		1225 lb/day for turbines, HRSGs, and fire pump diesel engine, combined during ozone season from June 1 through September 30	BAAQMD condition #23763, part 26	С	CEM	X	
NOx	BAAQMD condition #23763, part 23a	Y		127 ton/yr for turbines, HRSGs, and fire pump diesel engine, combined (includes emissions from commissioning period)	BAAQMD condition #23763, part 26	C	CEM	X	
NO <sub>x</sub>	Federal PSD Permit condition #26117, part 23a	Y		127 ton/yr for turbines, HRSGs, and fire pump diesel engine, combined (includes emissions from commissioning period)	Federal PSD Permit condition #26117, part 26	С	СЕМ	X	
NOx	BAAQMD condition #23763, part 51a	Y		4,800 lbs. from commissioning activities for black start capability	BAAQMD condition #23763, part 52	P/E	CEM, records, calculations	NA	
$NO_x$	Federal PSD Permit condition #26117, part 63a			4,800 lbs. from commissioning activities for black start capability	Federal PSD Permit condition #26117, part 64	P/E	CEM, records, calculations	NA	

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Type of	Citation of	FE	Future		Monitoring	Monitoring	Monitoring	Comp	liance
Limit	Limit	Y/N	Effective Date	Limit	Requirement Citation	Frequency (P/C/N)	Туре	Yes	No
NOx	BAAQMD condition #23763, part 53a			5,760 lb/day for both turbines combined when commissioning activities for black start capability or black start emergency operations occur	BAAQMD condition #23763, part 26	P/E	CEM, records, calculations	NA	
NOx	Federal PSD Permit condition #26117, part 65a			5,760 lb/day for both turbines combined when commissioning activities for black start capability or black start emergency operations occur	Federal PSD Permit condition #26117, part 26	P/E	CEM, records, calculations	NA	
NOx	BAAQMD condition #23763, part 54a			11,520 lbs. for both turbines combined during a black start emergency event	BAAQMD condition #23763, part 26	P/E	CEM, records, calculations	NA	
NOx	Federal PSD Permit condition #26117, part 66a			11,520 lbs. for both turbines combined during a black start emergency event	Federal PSD Permit condition #26117, part 26	P/E	CEM, records, calculations	NA	
СО	BAAQMD condition #23763, part 19c	Y		10 lb/hr, for each turbine and HRSG combined, except during turbine startup, shutdown, combustor tuning operation, commissioning activities for black start capability, or black start emergency operations.	BAAQMD condition #23763, part 26b	С	CEM	X	
СО	BAAQMD condition #23763, part 19c	Y		10 lb/hr, for each turbine and HRSG combined, except during turbine startup, shutdown, combustor tuning operation, commissioning activities for black start capability, or black start emergency operations.	BAAQMD condition #23763, part 30	P/A	Source test at maximum and minimum load	X	

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Type of	Citation of	FE	Future	T*4	Monitoring	Monitoring	Monitoring	Comp	liance
Limit	Limit	Y/N	Effective Date	Limit	Requirement Citation	Frequency (P/C/N)	Туре	Yes	No
CO	Federal PSD Permit condition #26117, part 19c	Y		10 lb/hr, for each turbine and HRSG combined, except during turbine startup, shutdown, combustor tuning operation, commissioning activities for black start capability, or black start emergency operations.	Federal PSD Permit condition #26117, part 26b	С	CEM	Х	
СО	Federal PSD Permit condition #26117, part 19c	Y		10 lb/hr, for each turbine and HRSG combined, except during turbine startup, shutdown, combustor tuning operation, commissioning activities for black start capability, or black start emergency operations.	Federal PSD Permit condition #26117, part 30	P/A	Source test at maximum and minimum load	X	
СО	BAAQMD condition #23763, part 19c	Y		0.0045 lb/MM BTU, for each turbine and HRSG combined, except during turbine startup, shutdown, combustor tuning operation, commissioning activities for black start capability, or black start emergency operations.	BAAQMD condition #23763, part 26b	C	СЕМ	X	
СО	BAAQMD condition #23763, part 19c	Y		0.0045 lb/MM BTU, for each turbine and HRSG combined, except during turbine startup, shutdown, combustor tuning operation, commissioning activities for black start capability, or black start emergency operations.	BAAQMD condition #23763, part 30	P/A	Source test at maximum and minimum load	X	
СО	Federal PSD Permit condition #26117, part 19c	Y		0.0045 lb/MM BTU, for each turbine and HRSG combined, except during turbine startup, shutdown, combustor tuning operation, commissioning activities for black start capability, or black start emergency operations.	Federal PSD Permit condition #26117, part 26b	С	CEM	Х	

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Type of	Citation of	FE	Future		Monitoring	Monitoring	Monitoring	Comp	liance
Limit	Limit	Y/N	Effective Date	Limit	Requirement Citation	Frequency (P/C/N)	Туре	Yes	No
СО	Federal PSD Permit condition #26117, part 19c	Y		0.0045 lb/MM BTU, for each turbine and HRSG combined, except during turbine startup, shutdown, combustor tuning operation, commissioning activities for black start capability, or black start emergency operations.	Federal PSD Permit condition #26117, part 30	P/A	Source test at maximum and minimum load	Х	
СО	BAAQMD condition #23763, part 19d	Y		2.0 ppmv, dry, @ 15% O <sub>2</sub> , for each turbine and HRSG combined, 3-hr average except during turbine startup, shutdown, combustor tuning operation, commissioning activities for black start capability, or black start emergency operations.	BAAQMD condition #23763, part 26b	C	CEM	X	
СО	BAAQMD condition #23763, part 19d	Y		2.0 ppmv, dry, @ 15% O <sub>2</sub> , for each turbine and HRSG combined, 3-hr average except during turbine startup, shutdown, combustor tuning operation, commissioning activities for black start capability, or black start emergency operations.	BAAQMD condition #13763, part 30	P/A	Source test at maximum and minimum load	X	
СО	Federal PSD Permit condition #26117, part 19d	Y		2.0 ppmv, dry, @ 15% O <sub>2</sub> , for each turbine and HRSG combined, 3-hr average except during turbine startup, shutdown, combustor tuning operation, commissioning activities for black start capability, or black start emergency operations.	Federal PSD Permit condition #26117, part 26b	C	CEM	X	

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Type of	Citation of	FE	Future		Monitoring	Monitoring	Monitoring	Comp	liance
Limit	Limit	Y/N	Effective Date	Limit	Requirement Citation	Frequency (P/C/N)	Туре	Yes	No
СО	Federal PSD Permit condition #26117, part 19d	Y		2.0 ppmv, dry, @ 15% O <sub>2</sub> , for each turbine and HRSG combined, 3-hr average except during turbine startup, shutdown, combustor tuning operation, commissioning activities for black start capability, or black start emergency operations.	Federal PSD Permit condition #26117, part 30	P/A	Source test at maximum and minimum load	X	
СО	BAAQMD condition #23763, part 20	Y		891 lb/turbine during hot start-up	BAAQMD condition #23763, part 26	P/D	Records, calculations	X	
СО	Federal PSD Permit condition #26117, part 20	Y		891 lb/turbine during hot start-up	Federal PSD Permit condition #26117, part 26	P/D	Records, calculations	X	
СО	BAAQMD condition #23763, part 20	Y		2,514 lb/turbine during warm start-up	BAAQMD condition #23763, part 26	P/D	Records, calculations	X	
СО	Federal PSD Permit condition #26117, part 20	Y		2,514 lb/turbine during warm start-up	Federal PSD Permit condition #26117, part 26	P/D	Records, calculations	X	
СО	BAAQMD condition #23763, part 20	Y		100 lb/turbine during shutdown	BAAQMD condition #23763, part 26	P/D	Records, calculations	X	
СО	Federal PSD Permit condition #26117, part 20	Y		100 lb/turbine during shutdown	Federal PSD Permit condition #26117, part 26	P/D	Records, calculations	X	
СО	BAAQMD condition #23763, part 20	Y		2,514 lb/turbine during cold start-up or combustor tuning operation	BAAQMD condition #23763, part 26	P/D	Records, calculations	X	

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Type of	Citation of	FE	Future		Monitoring	Monitoring	Monitoring	Comp	liance
Limit	Limit	Y/N	Effective Date	Limit	Requirement Citation	Frequency (P/C/N)	Туре	Yes	No
СО	Federal PSD Permit condition #26117, part 20	Y		2,514 lb/turbine during cold start-up or combustor tuning operation	Federal PSD Permit condition #26117, part 26	P/D	Records, calculations	X	
СО	BAAQMD condition #23763, part 22c	Y		7,360 lb/day for turbines, HRSGs, and fire pump diesel engine combined	BAAQMD condition #23763, part 26b	С	СЕМ	X	
СО	Federal PSD Permit condition #26117, part 22c	Y		7,360 lb/day for turbines, HRSGs, and fire pump diesel engine combined	Federal PSD Permit condition #26117, part 26b	С	CEM	X	
СО	BAAQMD condition #23763, part 23b	Y		330 ton/yr for turbines, HRSGs, and fire pump diesel engine combined (includes emissions from commissioning period)	BAAQMD condition #23763, part 26b	С	CEM	X	
СО	Federal PSD Permit condition #26117, part 23b	Y		330 ton/yr for turbines, HRSGs, and fire pump diesel engine combined (includes emissions from commissioning period)	Federal PSD Permit condition #26117, part 26b	C	СЕМ	X	
СО	BAAQMD condition #23763, part 51b	Y		114,000 lbs. from commissioning activities for black start capability	BAAQMD condition #23763, part 52	P/E	CEM, records, calculations	NA	
СО	Federal PSD Permit condition #26117, part 63b	Y		114,000 lbs. from commissioning activities for black start capability	Federal PSD Permit condition #26117, part 64	P/E	CEM, records, calculations	NA	
СО	BAAQMD condition #23763, part 53b	Y		131,100 lb/day for both turbines combined when commissioning activities for black start capability or black start emergency operations occur	BAAQMD condition #23763, part 26	P/E	CEM, records, calculations	NA	

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Type of	Citation of	FE	Future Effective	Limit	Monitoring Requirement	Monitoring Frequency	Monitoring	Comp	oliance
Limit	Limit	Y/N	Date	Limit	Citation	(P/C/N)	Type	Yes	No
СО	Federal PSD Permit condition #26117, part 65b	Y		131,100 lb/day for both turbines combined when commissioning activities for black start capability or black start emergency operations occur	Federal PSD Permit condition #26117, part 26	P/E	CEM, records, calculations	NA	
СО	BAAQMD condition #23763, part 54b	Y		137,100 lbs. for both turbines combined during a black start emergency event	BAAQMD condition #23763, part 26	P/E	CEM, records, calculations	NA	
СО	Federal PSD Permit condition #26117, part 66b	Y		137,100 lbs. for both turbines combined during a black start emergency event	Federal PSD Permit condition #26117, part 26	P/E	CEM, records, calculations	NA	
$CO_2$		Y		None	40 CFR 75.10	C	fuel flow monitor and CO <sub>2</sub> calculation	X	
$\mathrm{SO}_2$	BAAQMD 9-1- 301	Y		GLC <sup>1</sup> 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	
$SO_2$	40 CFR 60 Subpart KKKK 60.443(a)(2)	Y		0.060 lb/MMBtu	40 CFR 60 Subpart KKKK 60.4365(a)	P	Natural gas sulfur content certification	X	
$SO_2$		Y		None	40 CFR 75.11, 40 CFR 75, Appendix D, part 2.3		Fuel measure- ments, calculations	X	
$SO_2$	BAAQMD condition #23763, part 19g	Y		6.21 lb/hr, for turbine and HRSG combined	BAAQMD condition #23763, part 30	P/A	Source test at maximum load	X	
$SO_2$	BAAQMD condition #23763, part 19g	Y		0.00128 lb/MM BTU, for turbine and HRSG combined	BAAQMD condition #23763, part 30	P/A	Source test at maximum load	X	

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Type of	Citation of	FE	Future	T*4	Monitoring	Monitoring	Monitoring	Comp	liance
Limit	Limit	Y/N	Effective Date	Limit	Requirement Citation	Frequency (P/C/N)	Туре	Yes	No
SO <sub>2</sub>	BAAQMD condition #23763, part 22f	Y		292 lb/day for turbines, HRSGs, and fire pump diesel engine combined	BAAQMD condition #23763, part 27	P/D	Records, calculations	X	
SO <sub>2</sub>	BAAQMD condition #23763, part 23e	Y		12.2 ton/yr for turbines, HRSGs, and diesel fire pump combined (includes emissions from commissioning period)	BAAQMD condition #23763, part 27	P/D	Records, calculations	X	
SO <sub>2</sub>	BAAQMD condition #23763, part 51e	Y		124 lbs. from commissioning activities for black start capability	BAAQMD condition #23763, part 52	P/E	Records, calculations	NA	
SO <sub>2</sub>	BAAQMD condition #23763, part 53e	Y		292 lb/day for both turbines combined when commissioning activities for black start capability or black start emergency operations occur	BAAQMD condition #23763, part 27	P/E	Records, calculations	NA	
SO <sub>2</sub>	BAAQMD condition #23763, part 54e	Y		298 lbs. for both turbines combined during a black start emergency event	BAAQMD condition #23763, part 27	P/E	Records, calculations	NA	
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	N		0.15 grain/dscf		N		X	
FP	SIP 6-310	Y		0.15 grain/dscf		N		X	
FP	BAAQMD 6-1- 310.3	N		0.15 grain/dscf @ 6% O <sub>2</sub>		N		X	
	SIP 6-310.3	Y		0.15 grain/dscf @ 6% O <sub>2</sub>		N		X	
PM <sub>10</sub>	BAAQMD condition #23763, part 19h	Y		7.5 lb/hr, for each turbine and HRSG combined	BAAQMD condition #23763, part 30	P/A	Source test at maximum load	X	

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Type of	Citation of	FE	Future		Monitoring	Monitoring	Monitoring	Comp	oliance
Limit	Limit	Y/N	Effective Date	Limit	Requirement Citation	Frequency (P/C/N)	Туре	Yes	No
PM <sub>10</sub>	BAAQMD condition #23763, part 19h	Y		0.0036 lb/MMBTU, for each turbine and HRSG combined	BAAQMD condition #23763, part 30	P/A	Source test at maximum load	X	
PM <sub>10</sub>	Federal PSD Permit condition #26117, part 19h	Y		7.5 lb/hr, for each turbine and HRSG combined	Federal PSD Permit condition #26117, part 30	P/A	Source test at maximum load	X	
PM <sub>10</sub>	Federal PSD Permit condition #26117, part 19h	Y		0.0036 lb/MMBTU, for each turbine and HRSG combined	Federal PSD Permit condition #26117, part 30	P/A	Source test at maximum load	X	
$PM_{10}$	BAAQMD condition #23763, part 22e	Y		413 lb/day for turbines, HRSGs, and fire pump diesel engine combined	BAAQMD condition #23763, part 27	P/D	Records, calculations	X	
PM <sub>10</sub>	Federal PSD Permit condition #26117, part 22e	Y		413 lb/day for turbines, HRSGs, and fire pump diesel engine combined	Federal PSD Permit condition #26117, part 27	P/D	Records, calculations	X	
PM <sub>10</sub>	BAAQMD condition #23763, part 23d	Y		71.8 ton/yr for turbines, HRSGs, and fire pump diesel engine combined (includes emissions from commissioning period)	BAAQMD condition #23763, part 27	P/D	Records, calculations	X	
PM <sub>10</sub>	Federal PSD Permit condition #26117, part 23d	Y		71.8 ton/yr for turbines, HRSGs, and fire pump diesel engine combined (includes emissions from commissioning period)	Federal PSD Permit condition #26117, part 27	P/D	Records, calculations	X	
$PM_{10}$	BAAQMD condition #23763, part 51d	Y		150 lbs. from commissioning activities for black start capability	BAAQMD condition #23763, part 52	P/E	Records, calculations	NA	
PM <sub>10</sub>	Federal PSD Permit condition #26117, part 63d	Y		150 lbs. from commissioning activities for black start capability	Federal PSD Permit condition #26117, part 27	P/E	Records, calculations	NA	

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Type of	Citation of	FE	Future	T*4	Monitoring	Monitoring	Monitoring	Comp	liance
Limit	Limit	Y/N	Effective Date	Limit	Requirement Citation	Frequency (P/C/N)	Туре	Yes	No
PM <sub>10</sub>	BAAQMD condition #23763, part 53d	Y		360 lb/day for both turbines combined when commissioning activities for black start capability or black start emergency operations	BAAQMD condition #23763, part 64	P/E	Records, calculations	NA	
PM <sub>10</sub>	Federal PSD Permit condition #26117, part 65d	Y		360 lb/day for both turbines combined when commissioning activities for black start capability or black start emergency operations occur	Federal PSD Permit condition #26117, part 27	P/E	Records, calculations	NA	
PM <sub>10</sub>	BAAQMD condition #23763, part 54d	Y		360 lbs. for both turbines combined during a black start emergency event	BAAQMD condition #23763, part 27	P/E	Records, calculations	NA	
PM <sub>10</sub>	Federal PSD Permit condition #26117, part 66d	Y		360 lbs. for both turbines combined during a black start emergency event	Federal PSD Permit condition #26117, part 27	P/E	Records, calculations	NA	
POC	BAAQMD condition #23763, part 19f	Y		2.86 lb/hr (as CH4) for each turbine and HRSG combined except during turbine startup, shutdown, combustor tuning operation, commissioning activities for black start capability, or black start emergency operations.	BAAQMD condition #23763, part 30	P/A	Source test at maximum load	Х	
POC	BAAQMD condition #23763, part 19f	Y		0.00128 lb/MM BTU (as CH4) for each turbine, and HRSG combined except during turbine startup, shutdown, combustor tuning operation, commissioning activities for black start capability, or black start emergency operations.	BAAQMD condition #23763, part 30	P/A	Source test at maximum load	X	

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Type of	Citation of	FE	Future	114	Monitoring	Monitoring	Monitoring	Comp	oliance
Limit	Limit	Y/N	Effective Date	Limit	Requirement Citation	Frequency (P/C/N)	Type	Yes	No
POC	BAAQMD condition #23763, part 20	Y		35.3 lb/turbine during hot start-up	BAAQMD condition #23763, part 27	P/D	Records, calculations	X	
POC	BAAQMD condition #23763, part 20	Y		79 lb/turbine during warm start-up	BAAQMD condition #23763, part 27	P/D	Records, calculations	X	
POC	BAAQMD condition #23763, part 20	Y		16 lb/turbine during shutdown	BAAQMD condition #23763, part 27	P/D	Records, calculations	X	
POC	BAAQMD condition #23763, part 20	Y		83 lb/turbine during cold start-up or combustor tuning operation	BAAQMD condition #23763, part 27	P/D	Records, calculations	X	
POC	BAAQMD condition #23763, part 22d	Y		295 lb/day (as CH4) for turbines and HRSGs combined	BAAQMD condition #23763, part 27	P/D	Records, calculations	X	
POC	BAAQMD condition #23763, part 23c	Y		28.5 ton/yr for turbines, HRSGs, and fire pump diesel engine combined (includes emissions from commissioning period)	BAAQMD condition #23763, part 27	P/D	Records, calculations	X	
POC	BAAQMD condition #23763, part 51c	Y		6,080 lbs/ from commissioning activities for black start capability	BAAQMD condition #23763, part 52	P/E	Records, calculations	NA	
РОС	BAAQMD condition #23763, part 53c	Y		7,300 lb/day for both turbines combined when commissioning activities for black start capability or black start emergency operations occur	BAAQMD condition #23763, part 27	P/E	Records, calculations	NA	
POC	BAAQMD condition #23763, part 54c	Y		14,600 lbs. for both turbines combined during a black start emergency event	BAAQMD condition #23763, part 27	P/E	Records, calculations	NA	

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Type of	Citation of	FE	Future	<b>.</b>	Monitoring	Monitoring	Monitoring	Comp	liance
Limit	Limit	Y/N	Effective Date	Limit	Requirement Citation	Frequency (P/C/N)	Туре	Yes	No
NH3	BAAQMD condition #23763, Part 19e	N		5 ppmv, dry, @ 15% O <sub>2</sub> , averaged over 3 hrs for each turbine and HRSG combined except during turbine startup or shutdown	BAAQMD condition #23763, part 26c, part 29	C	Ammonia injection rate monitor, calculations, and annual source test	X	
Formal- dehyde	BAAQMD condition #23763, part 25	N		10,912 lb/yr for turbines and HRSGs combined	BAAQMD condition #23763, part 28	P/D	Records, calculations	X	
Formal- dehyde	BAAQMD condition #23763, part 25	N		10,912 lb/yr for turbines and HRSGs combined	BAAQMD condition #23763, part 32	P/every two years on P-1 or P-2	Source test	X	
Benzene	BAAQMD condition #23763, part 25	N		226 lb/yr for turbines and HRSGs combined	BAAQMD condition #23763, part 28	P/D	Records, calculations	X	
Benzene	BAAQMD condition #23763, part 25	N		226 lb/yr for turbines and HRSGs combined	BAAQMD condition #23763, part 32	P/every two years on P-1 or P-2	Source test	X	
Specified PAHs	BAAQMD condition #23763, part 25	N		1.8 lb/yr for turbines and HRSGs combined	BAAQMD condition #23763, part 28	P/D	Records, calculations	X	
Specified PAHs	BAAQMD condition #23763, part 25	N		1.8 lb/yr for turbines and HRSGs combined	BAAQMD condition #23763, part 32	P/every two years on P-1 or P-2	Source test	X	
Heat Input limit	BAAQMD condition #23763, part 13	Y		2,238.6 MM BTU/hour, 3-hr average for each Turbine and HRSG, total	BAAQMD condition #23763, part 26a	С	Fuel meter, calculations	X	
Heat Input limit	Federal PSD Permit condition #26117, part 13	Y		2,238.6 MM BTU/hour, 3-hr average for each Turbine and HRSG, total	Federal PSD Permit condition #26117, part 26a	С	Fuel meter, calculations	X	

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Type of	Citation of	FE	Future		Monitoring	Monitoring	Monitoring	Comp	liance
Limit	Limit	Y/N	Effective Date	Limit	Requirement Citation	Frequency (P/C/N)	Туре	Yes	No
Heat Input Limit	BAAQMD condition #23763, part 14	Y		53,726 MM BTU/calendar day, for each Turbine and HRSG, total	BAAQMD condition #23763, part 26a	С	fuel meter, calculations	X	
Heat Input Limit	Federal PSD Permit condition #26117, part 14	Y		53,726 MM BTU/calendar day, for each Turbine and HRSG, total	Federal PSD Permit condition #26117, part 26a	С	fuel meter, calculations	X	
Heat Input Limit	BAAQMD condition #23763, part 15	Y		35,708,858 MM BTU/year for S-1 & S-3 Turbines and S-2 & S-4 HRSGs combined	BAAQMD condition #23763, part 26a	C	fuel meter, calculations	X	
Heat Input Limit	Federal PSD Permit condition #26117, part 15	Y		35,708,858 MM BTU/year for S-1 & S-3 Turbines and S-2 & S-4 HRSGs combined	Federal PSD Permit condition #26117, part 26a	С	fuel meter, calculations	X	
CO <sub>2</sub> E	Federal PSD Permit condition #26117, part 50	Y		242 metric tons per hour for gas turbines and HRSGs, combined	Federal PSD Permit condition #26117, part 15	P/M	Fuel meter, calculations	X	
CO₂E	Federal PSD Permit condition #26117, part 51	Y		5,802 metric tons per day for gas turbines and HRSGs, combined	Federal PSD Permit condition #26117, part 54	P/M	Fuel meter, calculations	X	
CO <sub>2</sub> E	Federal PSD Permit condition #26117, part 52	Y		1,928,182 metric tons per year for gas turbines and HRSGs, combined	Federal PSD Permit condition #26117, part 54	P/M	Fuel meter, calculations	X	
CO₂E	BAAQMD condition #23763, part 51f	Y		3,298,700 lbs. CO2E from commissioning activities for black start capability	BAAQMD condition #23763, part 52	P/E	Records, calculations	NA	
CO <sub>2</sub> E	Federal PSD Permit condition #26117, part 63f	Y		3,298,700 lbs. CO2E from commissioning activities for black start capability	Federal PSD Permit condition #26117, part 64	P/E	Records, calculations	NA	

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Type of	Citation of	FE	Future		Monitoring	Monitoring	Monitoring	Compliance	
Limit	Limit	Y/N	Effective Date	Limit	Requirement Citation	Frequency (P/C/N)	Туре	Yes	No
CO <sub>2</sub> E	BAAQMD condition #23763, part 53f	Y		12,786,900 lb CO2E/day for both turbines combined when commissioning activities for black start capability or black start emergency operations occur	BAAQMD condition #23763, part 26	P/E	Records, calculations	NA	
CO <sub>2</sub> E	Federal PSD Permit condition #26117, part 65f	Y		12,786,900 lb CO2E/day for both turbines combined when commissioning activities for black start capability or black start emergency operations occur	Federal PSD Permit condition #26117, part 54	P/E	Records, calculations	NA	
CO <sub>2</sub> E	BAAQMD condition #23763, part 54f	Y		11,644,500 lbs. CO2E for both turbines combined during a black start emergency event	BAAQMD condition #23763, part 26	P/E	Records, calculations	NA	
CO <sub>2</sub> E	Federal PSD Permit condition #26117, part 66f	Y		11,644,500 lbs. CO2E for both turbines combined during a black start emergency event	Federal PSD Permit condition #26117, part 54	P/E	Records, calculations	NA	
Heat Rate Limit	Federal PSD Permit condition #26117, part 53	Y		7,730 BTU/KW-hr for each gas turbine	Federal PSD Permit condition #26117, part 55	P/A	Source Test	X	
Commissioning Activities for Black Start Capability	BAAQMD condition #23763, part 50	Y		20 hours for both gas turbines combined.	BAAQMD condition #23763, part 52	P/E	Records, calculations	NA	
Commissioning Activities for Black Start Capability	Federal PSD Permit condition #26117, part 62	Y		20 hours for both gas turbines combined.	Federal PSD Permit condition #26117, part 64	P/E	Records, calculations	NA	

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## $\label{eq:continuous} \begin{tabular}{ll} Table \ VII-B \\ Applicable \ Limits \ and \ Compliance \ Monitoring \ Requirements \\ S-5, \ COOLING \ TOWER \\ \end{tabular}$

Type of	Citation of	FE	Future Effective	Limit	Monitoring	Monitoring	Monitoring	Comp	liance
Limit	Limit	Y/N	Date	Limit	Requirement Citation	Frequency (P/C/N)	Туре	Y	N
Opacity	BAAQMD 6-1- 303.1	N		≥ Ringelmann No. 2 for no more than 3 minutes in any hour		N		X	
Opacity	SIP Regulation 6-303.1	Y		≥ Ringelmann 2.0 for 3 minutes in any hour		N		X	
FP	BAAQMD 6-1- 310	N		0.15 grain/dscf		N		X	
FP	SIP Regulation 6-310	Y		0.15 gr/dscf		N		X	
Total Dissolved Solids	BAAQMD Condition #23763, part 44	Y		6,200 ppmw (mg/l)	BAAQMD Condition #23763, part 44	P/D	Sample and test cooling tower water	X	
Total Dissolved Solids	Federal PSD Permit Condition #26117, part 44	Y		6,200 ppmw (mg/l)	Federal PSD Permit Condition #26117, part 44	P/D	Sample and test cooling tower water	X	

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## $\label{eq:total-condition} Table~VII-C$ Applicable Limits and Compliance Monitoring Requirements S-6, FIRE PUMP DIESEL ENGINE

Type of	Citation of	FE	Future		Monitoring	Monitoring	Monitoring	Comp	liance
Limit	Limit	Y/N	Effective Date	Limit	Requirement Citation	Frequency (P/C/N)	Туре	Y	N
Opacity	BAAQMD 6-1- 303.1	N		≥ Ringelmann No. 2 for no more than 3 minutes in any hour		N		X	
Opacity	SIP Regulation 6-303.1	Y		≥ Ringelmann 2.0 for 3 minutes in any hour		N		X	
FP	BAAQMD 6-1- 310	N		0.15 grain/dscf		N		X	
FP	SIP Regulation 6-310	Y		0.15 gr/dscf		N		X	
SO <sub>2</sub>	BAAQMD 9-1- 301	Y		Property Line Ground Level Limits: $\leq 0.5$ ppm for 3 minutes and $\leq 0.25$ ppm for 60 min. and $\leq 0.05$ ppm for 24 hours	None	N	N/A	X	
$\mathrm{SO}_2$	BAAQMD 9-1- 304	Y		Fuel Sulfur Limit 0.5%	BAAQMD Condition # 20498, Parts 5 and 8	P/E	Vendor Certification	X	
Reliability Related Hours	BAAQMD 9-8- 330	N		50 hours	9-8-502	P/E	Totalizing meter, Record- keeping	X	
Hours for maintenanc e and testing	Title 17, California Code of Regulations section 93115.6(a) (4)	N		Not operate more than the number of hours necessary to comply with the testing requirements of the National Fire Protection Association (NFPA) 25 – "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems," 2002 edition	93115.10(d)	P/E	Totalizing meter. Record- keeping	X	
Reliability- related activities	BAAQMD Condition #23763, part 46	N		50 hours per calendar year	BAAQMD Condition #23763, parts 48, 49	P/E	Totalizing meter, record- keeping	X	

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Type of	Citation of	FE	Future Effective Date	Limit	Monitoring	Monitoring Frequency	Monitoring Type	Compliance	
Limit	Limit	Y/N			Requirement Citation	(P/C/N)		Y	N
Reliability- related activities	Federal PSD Permit Condition #26117, part 46	N		50 hours per calendar year	Federal PSD Permit Condition #26117, parts 48, 49	P/E	Totalizing meter, record- keeping	X	
CO <sub>2</sub> E	Federal PSD Permit Condition #26117, part 56	Y		7.6 metric tons per rolling 12-month period	Federal PSD Permit Condition #26117, part 58	P/E	Totalizing meter, record- keeping	X	

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## Table VII – D Applicable Limits and Compliance Monitoring Requirements S-7, S-8, S-9, S-10, & S-11 CIRCUIT BREAKERS

Type of Limit		FE Y/N	Future Effective Date	Limit	Monitoring	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
					Requirement Citation			Y	N
	Federal PSD				Federal PSD				
	Permit			39.3 metric tons per rolling	Permit		Record-		
CO <sub>2</sub> E	Condition	Y		12- month period from S-7	Condition	P	keeping,	X	
	#26117,			through S-11, combined	#26117,		calculations		
	part 59				part 60				