Marsh Landing LLC
Marsh Landing Generating Station
3201 Wilbur Avenue
P.O. Box 1687
Antioch, CA 94509

January 29, 2021

TV Tracking #: 562 (2nd Semi-Annual 2020)

TV Tracking #: 149 (Annual 2020)

1. ☐ RECEIVED IN ENFORCEMENT: 01/29/2021

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

2020 Annual Title V Monitoring Report and Compliance Certification for Marsh Landing LLC, Marsh Landing Generating Station (Plant #B9169) for January 1, 2020 through December 31, 2020

Dear Mr. Gove:

Please find enclosed the 2020 Annual Title V Monitoring Report and Compliance Certification for Marsh Landing LLC, Marsh Landing Generating Station (Plant #B9169) for January 1, 2020 through December 31, 2020.

If you have any questions regarding the content of this report, please contact Scott Seipel at scott.seipel@nrg.com or (909) 648-5008.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,

Joseph Moura
Plant Manager
Marsh Landing Generating Station

Attachments

Marsh Landing Generating Station
Title V Compliance Tables Table VII – A & B
Applicable Limits and Compliance Monitoring Requirements
January 1 to December 31, 2020

Table VII - A
Applicable Limits and Compliance Monitoring Requirements
S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES

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 (C/I)	No
NOx	BAAQMD 9-9-301.1.3	N		9 ppmv @ 15% O2, dry	BAAQMD 9-9-501 and BAAQMD condition #24732, parts 24 and 28	C P/A	CEM Annual source test	C	
NOx	BAAQMD 9-9-301.2	N		0.15 lbs/MWhr or 5 ppmv @ 15% O2, dry	BAAQMD 9-9-501 and BAAQMD condition #24732 parts 24 and 28	C P/A	CEM Annual source test	C	
NOx	SIP 9-9-301.3	Y		9 ppmv @ 15% O2, dry	BAAQMD 9-9-501 and BAAQMD condition #24732, parts 24 and 28	C P/A	CEM Annual source test	C	
NOx	NSPS Subpart KKKK 40 CFR 60.4320(a)	Y		15 ppmv @ 15% O2, dry 4-hour rolling average for turbines at or above 75% of peak load	NSPS 40 CFR 60.4340(b)(1)	C	CEM	C	
NOx	NSPS Subpart KKKK 40 CFR 60.4320(a)	Y		96 ppmv @ 15% O2, dry 4-hour rolling average for turbines operating below 75% of peak load	NSPS 40 CFR 60.4340(b)(1)	C	CEM	C	

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Table VII - A
Applicable Limits and Compliance Monitoring Requirements
S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES

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 (C/I)	No
NOx	None	Y		None	40 CFR 75.10	C	CEM	C	
NOx	BAAQMD condition #24732, Part 17a	Y		20.83 lb per hour or 0.00946 lb/MMBTU (measured as NO_2)	BAAQMD condition #24732, Parts 24 and 28	C P/A	CEM Annual source test	**I See Deviation Summary**	
NOx	BAAQMD condition #24732, Part 17b	Y		2.5 ppmv @ 15% O2, dry, Averaged over one hour except during transient hours when a 3-hr average is applied	BAAQMD condition #24732, Parts 24 and 28	C P/A	CEM Annual source test	**I See Deviation Summary**	
NOx	BAAQMD condition #24732, Part 18	Y		36.4 lb per startup, 45.1 lb/hr containing a startup, and 15.1 lb per shutdown (Not applicable during readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations)	BAAQMD condition #24732, Part 24	C	CEM	C	
NOx	BAAQMD condition #24732, Part 19	Y		80 lb/hr during combustor tuning (as NO_2)	BAAQMD condition #24732, Part 24	C	CEM	C	

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Table VII - A
Applicable Limits and Compliance Monitoring Requirements
S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES

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 (C/I)	No
NOx	BAAQMD condition #24732, Part 20a	Y		2,468 lb combined from S-1, S-2, S-3, and S-4 per any calendar day (except days when tuning occurs, excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations) (as NO_2)	BAAQMD condition #24732, Part 24	C	CEM	C	
NOx	BAAQMD condition #24732, Part 21a	Y		2,941 lb combined from S-1, S-2, S-3, and S-4 per any calendar day (as NO_2), excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations	BAAQMD condition #24732, Part 24	C	CEM	C	

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Table VII - A
Applicable Limits and Compliance Monitoring Requirements
S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES

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 (C/I)	No
NOx	BAAQMD condition #24732, Part 22a	Y		78.57 tons combined from S-1, S-2, S-3, and S-4 per consecutive twelve month period (as NO_2), excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations	BAAQMD condition #24732, Part 24	C	CEM	C	
NOx	BAAQMD condition #24732, Part 42	Y		3,311 lbs. from commissioning activities for black start capability	BAAQMD condition #24732, part 43	P/E	CEM, records, calculations	C	
NOx	BAAQMD condition #24732, part 44(a)	Y		8,048 lb/day from readiness testing for black start capability and black start emergency operations at S-3 and S-4 combined	BAAQMD condition #24732, part 24	P/E	CEM, records, calculations	C	
NOx	BAAQMD condition #24732, part 45(a)	Y		414 lb/year from readiness testing for black start capability at S-3 and S-4 combined	BAAQMD condition #24732, part 24	P/E	CEM, records, calculations	C	

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Table VII - A
Applicable Limits and Compliance Monitoring Requirements
S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES

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 (C/I)	No
NOx	BAAQMD condition #24732, part 46(a)	Y		16,283 lb/year from readiness testing for black start capability and black start emergency operations at S-3 and S-4 combined	BAAQMD condition #24732, part 24	P/E	CEM, records, calculations	C	
CO	BAAQMD condition #24732, Part 17c	Y		10.0 lb/hr or 0.00454 lb/MMBTU at each exhaust point P-1, P-2, P-3, or P-4	BAAQMD condition #24732, Parts 24 and 28	C P/A	CEM Annual source test	**I See Deviation Summary**	
CO	BAAQMD condition #24732, Part 17d	Y		2.0 ppmv @ 15% O2, dry, Averaged over any 1-hour	BAAQMD condition #24732, Parts 24 and 28	C P/A	CEM Annual source test	**I See Deviation Summary**	
CO	BAAQMD condition #24732, Part 18	Y		216.2 lb per startup, 541.3 lb/hr containing a startup, and 111.5 lb per shutdown (Not applicable during readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations)	BAAQMD condition #24732, Part 24	C	CEM	C	

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Table VII - A
Applicable Limits and Compliance Monitoring Requirements
S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES

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 (C/I)	No
CO	BAAQMD condition #24732, Part 19	Y		450 lb/hr during combustor tuning	BAAQMD condition #24732, Part 24	C	CEM	C	
CO	BAAQMD condition #24732, Part 20b	Y		4,858 lb combined from S-1, S-2, S-3, and S-4 per any calendar day (except days when tuning occurs, excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations	BAAQMD condition #24732, Part 24	C	CEM	C	
CO	BAAQMD condition #24732, Part 21b	Y		8,378 lb combined from S-1, S-2, S-3, and S-4 per any calendar day, excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations	BAAQMD condition #24732, Part 24	C	CEM	C	

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Table VII - A
Applicable Limits and Compliance Monitoring Requirements
S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES

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 (C/I)	No
CO	BAAQMD condition #24732, Part 22b	Y		138.57 tons combined from S-1, S-2, S-3, and S-4 per consecutive twelve month period, excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations	BAAQMD condition #24732, Part 24	C	CEM	C	
CO_2		Y		None	40 CFR 75.10	C	CEM (CO2) or CEM (O2) or fuel flow monitor	C	
CO	BAAQMD condition #24732, Part 42	Y		103,486 lbs. from commissioning activities for black start capability	BAAQMD condition #24732, part 43	P/E	CEM, records, calculations	C	
CO	BAAQMD condition #24732, part 44(b)	Y		100,673 lb/day from readiness testing for black start capability and black start emergency operations at S-3 and S-4 combined	BAAQMD condition #24732, part 24	P/E	CEM, records, calculations	C	

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Table VII - A
Applicable Limits and Compliance Monitoring Requirements
S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES

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 (C/I)	No
CO	BAAQMD condition #24732, part 45(a)	Y		12,936 lb/year from readiness testing for black start capability at S-3 and S-4 combined	BAAQMD condition #24732, part 24	P/E	CEM, records, calculations	C	
CO	BAAQMD condition #24732, part 46(a)	Y		212,725 lb/year from readiness testing for black start capability and black start emergency operations at S-3 and S-4 combined	BAAQMD condition #24732, part 24	P/E	CEM, records, calculations	C	
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		C	
SO_2	BAAQMD 9-1-302	Y		300 ppm (dry)	BAAQMD condition #24732, Part 11	P/M	Total sulfur analysis	C	
SO_2	NSPS Subpart KKKK 40 CFR 60.4330(a)(2)	Y		0.060 lb SO2/MMBtu	NSPS 40 CFR 60.4365(a)	N	None	C	

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Table VII - A
Applicable Limits and Compliance Monitoring Requirements
S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES

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 (C/I)	No
SO_2	None	Y		None	40 CFR 75.11(d)(2), 40 CFR 75, Appendix D, part 2.3		Fuel measure-ments, calculations	C	
SO_2	BAAQMD condition #24732, Part 11	Y		Fire exclusively natural gas with 1 grain sulfur per 100 scf	BAAQMD condition #24732, Part 11	P/M	Total sulfur analysis	C	
SO_2	BAAQMD condition #24732, Part 17g	Y		6.21 lb/hr	BAAQMD condition #24732, Parts 24, 25, and 28	P/D P/A	Record keeping, District approved calculation, Annual source test	C	
SO_2	BAAQMD condition #24732, Part 20e	Y		596 lb combined from S-1, S-2, S-3, and S-4 per calendar day, excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations	BAAQMD condition #24732, Part 25	P/D	Record keeping, District approved calculation	C	

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Table VII - A
Applicable Limits and Compliance Monitoring Requirements
S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES

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 (C/I)	No
SO_2	BAAQMD condition #24732, Part 21e	Y		596 lb combined from S-1, S-2, S-3, and S-4 per calendar day, excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations	BAAQMD condition #24732, Part 28	P/D	Record keeping, District approved calculation	C	
SO_2	BAAQMD condition #24732, Part 22e	Y		4.94 tons/consecutive twelve month period, excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations	BAAQMD condition #24732, Part 28	P/D	Record keeping, District approved calculation	C	
SO_2	BAAQMD condition #24732, Part 42	Y		84 lbs. from commissioning activities for black start capability	BAAQMD condition #24732, part 43	P/E	Records, calculations	C	
SO_2	BAAQMD condition #24732, part 44(e)	Y		174 lb/day from readiness testing for black start capability and black start emergency operations at S-3 and S-4 combined	BAAQMD condition #24732, part 25	P/E	Records, calculations	C	

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Table VII - A
Applicable Limits and Compliance Monitoring Requirements
S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES

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 (C/I)	No
SO_2	BAAQMD condition #24732, part 45(e)	Y		10 lb/year from readiness testing for black start capability at S-3 and S-4 combined	BAAQMD condition #24732, part 25	P/E	Records, calculations	C	
SO_2	BAAQMD condition #24732, part 46(e)	Y		354 lb/year from readiness testing for black start capability and black start emergency operations at S-3 and S-4 combined	BAAQMD condition #24732, part 25	P/E	Records, calculations	C	
Opacity	BAAQMD 6-1-301	N		> Ringelmann No. 1 for no more than 3 minutes in any hour		N		C	
Opacity	SIP 6-301	Y		> Ringelmann No. 1 for no more than 3 minutes in any hour		N		C	
Filterable Particulate	BAAQMD 6-1-310	N		0.15 grain/dscf		N		C	
FP	SIP 6-310	Y		0.15 grain/dscf		N		C	
PM_{10}	BAAQMD condition #24732, Part 17h	Y		9.0 lb/ hr	BAAQMD condition #24732, Part 28	P/A	Annual source test	C	

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Table VII - A
Applicable Limits and Compliance Monitoring Requirements
S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES

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 (C/I)	No
PM_{10}	BAAQMD condition #24732, Part 20d	Y		864 lb/calendar day, excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations	BAAQMD condition #24732, Part 25	P/D	Record keeping, District approved calculation	C	
PM_{10}	BAAQMD condition #24732, Part 21d	Y		864 lb/calendar day, excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations	BAAQMD condition #24732, Part 25	P/D	Record keeping, District approved calculation	C	
PM_{10}	BAAQMD condition #24732, Part 22d	Y		31.54 tons/consecutive twelve month period, excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations	BAAQMD condition #24732, Part 28	P/A	Annual source test, District approved calculation	C	
PM_{10}	BAAQMD condition #24732, Part 42	Y		123 lbs. from commissioning activities for black start capability	BAAQMD condition #24732, part 43	P/E	Records, calculations	C	

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Table VII - A
Applicable Limits and Compliance Monitoring Requirements
S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES

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 (C/I)	No
PM_{10}	BAAQMD condition #24732, part 44(d)	Y		255 lb/day from readiness testing for black start capability and black start emergency operations at S-3 and S-4 combined	BAAQMD condition #24732, part 25	P/E	Records, calculations	C	
PM_{10}	BAAQMD condition #24732, part 45(d)	Y		15 lb/year from readiness testing for black start capability at S-3 and S-4 combined	BAAQMD condition #24732, part 25	P/E	Records, calculations	C	
PM_{10}	BAAQMD condition #24732, part 46(d)	Y		518 lb/year from readiness testing for black start capability and black start emergency operations at S-3 and S-4 combined	BAAQMD condition #24732, part 25	P/E	Records, calculations	C	
TSP	BAAQMD condition #24732, Part 17i	Y		9.0 lb TSP per hour from each exhaust point P-1, P-2, P-3, or P-4	BAAQMD condition #24732, Parts 25 and 28	P/D	Record Keeping, Annual source test, District approved calculation	C	

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Table VII - A
Applicable Limits and Compliance Monitoring Requirements
S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES

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 (C/I)	No
POC	BAAQMD condition #24732, Part 17f	Y		2.9 lb/hr	BAAQMD condition #24732, Part 28	P/A	Annual source test	**I See Deviation Summary**	
POC	BAAQMD condition #24732, Part 18	Y		11.9 lb per startup, 28.5 lb/hr containing a startup, and 5.4 lb per shutdown (Not applicable during readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations	Initial Test condition #24772 Part 10	none	Record Keeping, District approved emission factor	C	
POC	BAAQMD condition #24732, Part 19	Y		30 lb/hr during combustor tuning	none	none	District approved emission factor (permit limit), Record Keeping	C	

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Applicable Limits and Compliance Monitoring Requirements
S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES

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 (C/I)	No
CPOC	BAAQMD condition #24732, Part 20c	Y		476 lb combined from S-1, S-2, S-3, and S-4 per calendar day (except days when tuning occurs, excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations)	BAAQMD condition #24732, Part 25	P/D	Record Keeping	C	
POC	BAAQMD condition #24732, Part 21c	Y		693 lb combined from S-1, S-2, S-3, and S-4 per calendar day, excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations	BAAQMD condition #24732, Part 25	P/D	Record Keeping	C	

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Table VII - A
Applicable Limits and Compliance Monitoring Requirements
S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES

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 (C/I)	No
POC	BAAQMD condition #24732, Part 22c	Y		14.21 ton combined from S-1, S-2, S-3, and S-4 per consecutive twelve month period year, excluding emissions from readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations	BAAQMD condition #24732, Part 25	P/D	Record Keeping	C	
POC	BAAQMD condition #24732, Part 42	Y		8,089 lbs. from commissioning activities for black start capability	BAAQMD condition #24732, part 43	P/E	Records, calculations	C	
POC	BAAQMD condition #24732, part 44(c)	Y		7,422 lb/day from readiness testing for black start capability and black start emergency operations at S-3 and S-4 combined	BAAQMD condition #24732, part 25	P/E	Records, calculations	C	
POC	BAAQMD condition #24732, part 45(c)	Y		1,011 lb/year from readiness testing for black start capability at S-3 and S-4 combined	BAAQMD condition #24732, part 25	P/E	Records, calculations	C	

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Table VII - A
Applicable Limits and Compliance Monitoring Requirements
S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES

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 (C/I)	No
POC	BAAQMD condition #24732, part 46(c)	Y		15,750 lb/year from readiness testing for black start capability and black start emergency operations at S-3 and S-4 combined	BAAQMD condition #24732, part 25	P/E	Records, calculations	C	
NH_3	BAAQMD condition #24732, Part 17e	N		10 ppmv @ 15% O2, dry, except during turbine startup, combustor tuning operation, or shutdown	BAAQMD condition #24732, parts 17e and 27	C P/A	District approved calculation Source test	C	
Heat input limit	BAAQMD condition #24732, Part 12	Y		2,202 MM BTU/hr (HHV)	BAAQMD condition #24732, Part 24	C	Fuel meter	C	
Heat input limit	BAAQMD condition #24732, Part 13	Y		52,848 MM BTU/day (HHV)	BAAQMD condition #24732, Part 24	C	Fuel meter, calculations	C	
Heat input limit	BAAQMD condition #24732, Part 14	Y		13,994,976 MM BTU/yr (HHV) (excluding heat input rate during readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations)	BAAQMD condition #24732, Part 24	C	Fuel meter, calculations	C	

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Table VII - A
Applicable Limits and Compliance Monitoring Requirements
S-1, S-2, S-3, S-4 COMBUSTION GAS TURBINES

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 (C/I)	No
Hours of Operation	BAAQMD condition #24732, Part 15	Y		7,008 combined hours for S-1, S-2, S-3, and S-4 per year excluding maintenance, tuning, testing, readiness testing for black start capability, commissioning activities for black start capability, and black start emergency operations	BAAQMD condition #24732, Part 36	P/D	Record Keeping	C	
Hours of Operation	BAAQMD condition #24732, Part 41	Y		64 combined hours for commissioning activities for black start capability at S-3 and S-4	BAAQMD condition #24732, Part 43	P/D	Record Keeping	C	

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Table VII – B
Applicable Limits and Compliance Monitoring Requirements
S-7 Standby Diesel Engine Generator Set
S-8 Emergency Standby Diesel Fire Pump 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 6-1-303.1	Y		>Ringelmann No.2 for no more than 3 minutes in any hour		N		C	
Opacity	SIP Regulation 6-1-303.1	Y		>Ringelmann No.2 for no more than 3 minutes in any hour		N		C	
FP	BAAQMD 6-1-310	Y		0.15 gr/dscf Particulate Weight Limitation		N		C	
FP	SIP Regulation 6-310	Y		0.15 gr/dscf		N		C	
SO_2	BAAQMD 9-1-301	N		GLC[1] of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N		C	
SO_2	BAAQMD 9-1-304	Y		0.5% sulfur in fuel by weight		N		C	
Hours of operation	BAAQMD Regulation 9-8-330.1	N		Emergency use for an unlimited number of hours	BAAQMD Regulation 9-8-530	P/E	Records	C	

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Table VII – B
Applicable Limits and Compliance Monitoring Requirements
S-7 Standby Diesel Engine Generator Set
S-8 Emergency Standby Diesel Fire Pump 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
Hours of operation	BAAQMD Condition #22850, part 1	N		Reliability related activities less than 50 hr/yr	BAAQMD Condition #22850, Parts 4a, 4b, 4c	C P/E	Records	C	

Compliance: C = Continuous; I = Intermittent

Marsh Landing Generating Station
Major Facility Review Permit Deviation Summary
January 1, 2020 – December 31, 2020

Marsh Landing Generating Station Major Facility Review Permit Deviation Summary

January 1, 2020 – December 31, 2020

Deviation Item No.	Permitted Source	Requirement or Limit	Deviation Period				No. of Dev	Cause of Deviation	Corrective Action Taken
			Start		End				
			Date	Time	Date	Time			
1	S-4	NOx 2.5 ppm and 20.83 lb/hr, Condition 17a and b	1/8/2020	12:02	1/8/2020	19:19	5769 RCA#07R25 (Breakdown) & RCA#07R26	Source 4 CEMS stack probe tube malfunctioned causing erroneously high NOx concentrations to be reported by the CEMS. The malfunctioning probe tube caused catalyzation of ammonia in the stack emissions (ammonia slip) from NH3 into NO due to high temperature (>800F) and chromium (Cr) present in the probe tube material (310 stainless steel). S-4 operation on January 8, 2020 was for testing of the CEMS to determine the cause of the excess NOx emissions.	Marsh Landing LLC entered into a Compliance and Enforcement Agreement with the BAAQMD on January 6, 2020. Breakdown and excess emissions reporting was completed in compliance with the Agreement. A temporary corrective action for Unit 4 was to install a replacement probe tube made of Hastelloy C-276 which is corrosion/heat resistant. Hastelloy composition has a Cr content of 16%. The Hastelloy probe was installed on January 19, 2020 and compliance was verified by third party stack testing. The permanent corrective action was to replace the 310 stainless steel probe tube with a 316 stainless steel probe tube that is lined with a silica coating to prevent catalyzation in the probe tube. The final corrective action was completed on March 11, 2020. A final close out report was submitted to the BAAQMD on February 14, 2020 in compliance with the Agreement. Final resolution is pending BAAQMD decision.

Marsh Landing Generating Station Major Facility Review Permit Deviation Summary

January 1, 2020 – December 31, 2020

Deviation Item No.	Permitted Source	Requirement or Limit	Deviation Period				No. of Dev	Cause of Deviation	Corrective Action Taken
			Start		End				
			Date	Time	Date	Time			
2	S-4	NOx 2.5 ppm and 20.83 lb/hr, Condition 17a and b	1/16/20	11:47	1/16/2020	13:02	6147 RCA#07R37 & RCA#07R38 (Breakdown)	Source 4 CEMS stack probe tube malfunctioned causing erroneously high NOx concentrations to be reported by the CEMS. The malfunctioning probe tube caused catalyzation of ammonia in the stack emissions (ammonia slip) from NH3 into NO due to high temperature (>800F) and chromium (Cr) present in the probe tube material (310 stainless steel). Operation of S-4 was for dispatch by the system operator. Operation for dispatch was covered by the Compliance and Enforcement Agreement Dated January 6, 2020.	Marsh Landing LLC entered into a Compliance and Enforcement Agreement with the BAAQMD on January 6, 2020. Breakdown and excess emissions reporting was completed in compliance with the Agreement. A temporary corrective action for Unit 4 was to install a replacement probe tube made of Hastelloy C-276 which is corrosion/heat resistant. Hastelloy composition has a Cr content of 16%. The Hastelloy probe was installed on January 19, 2020 and compliance was verified by third party stack testing. The permanent corrective action was to replace the 310 stainless steel probe tube with a 316 stainless steel probe tube that is lined with a silica coating to prevent catalyzation in the probe tube. The final corrective action was completed on March 11, 2020. A final close out report was submitted to the BAAQMD on February 14, 2020 in compliance with the Agreement. Final resolution is pending BAAQMD decision.

Marsh Landing Generating Station Major Facility Review Permit Deviation Summary

January 1, 2020 – December 31, 2020

Deviation Item No.	Permitted Source	Requirement or Limit	Deviation Period				No. of Dev	Cause of Deviation	Corrective Action Taken
			Start		End				
			Date	Time	Date	Time			
3 & 4	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	11/20/19 & 1/16/20	1917 11:47	11/21/19 1/16/20	0133 13:01	5774 RCA#07R45 Same	Source testing results from November 19-20, 2019 for POC emissions indicate emissions rate of 18.76 lb/hr and 0.0090 lb/mmBtu. These results are used to calculate hourly emissions based on fuel use. The POC emissions for the hours 1900 through 0100 based on the tentative testing results indicate excess emissions. The likely cause of the POC emissions was contaminated testing equipment supplied by the stack testing contractor. This was later verified by duplicated source testing on February 19, 2020 and testing with an alternate test method on June 25, 2020, which demonstrated passing results consistent with historical POC testing results for S-1 and likewise for S-2 – S-4.	The POC source test results from November 2019 and February 2020 were invalidated by the BAAQMD Source Test Division due to inappropriate test methods. The June 2020 POC source test was accepted as compliant by the BAAQMD Source Test Division. Annual source testing conducted in November 2020 also confirmed compliant POC results on Unit 1. BAAQMD has indicated that the corresponding POC deviation reports from November 2019 to November 2020 will be rescinded. .
c5	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	2/19/20		2/19/20		5850 RCA#07S00	See Deviation #3 & 4 Cause of Deviation for details.	See Deviation #3 & 4 Corrective Action Taken for details.

Marsh Landing Generating Station Major Facility Review Permit Deviation Summary

January 1, 2020 – December 31, 2020

Deviation Item No.	Permitted Source	Requirement or Limit	Deviation Period				No. of Dev	Cause of Deviation	Corrective Action Taken
			Start		End				
			Date	Time	Date	Time			
6	S-1	CO 2.0 ppm and 0.00454 lb/mmBtu	3/12/20	21:26	3/13/20	01:59	5890 RCA#07S68	A specific cause of the excess CO emissions was not identified during an evaluation of the Unit 1 gas turbine and pollution control equipment; that is, we did not identify a failure of the equipment or a part or a reason that the gas turbine came out of adjustment. However, it is suspected that the offline adjustment to the gas turbine control systems corrected the issue. Operation of the unit on March 21, 2020 after the adjustment was made reported compliant CO emissions.	An offline adjustment to the gas turbine control systems corrected the issue as demonstrated by compliant operation on March 21, 2020. In order to prevent a reoccurrence of this type of emissions episode preventative measure will include a test run of the unit after annual outages are completed to confirm operational performance and emissions compliance. Excess CO emissions rates were 5.5 percent above the permit limit of 0.00454 lb/mmBtu, and 5 percent above the permit limit of 2.0 ppm. These emissions rates are less than 20 percent over the respective permit limits. The excess emissions report was submitted to the BAAQMD for a final compliance determination.
7	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	3/12/20	21:26	3/13/20	0:59	5891 RCA#07S70	See Deviation #3 & 4 Cause of Deviation for details.	See Deviation #3 & 4 Corrective Action Taken for details.
8	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	3/21/20	19:21	3/21/20	21:46	6145 RCA#07S80	See Deviation #3 & 4 Cause of Deviation for details.	See Deviation #3 & 4 Corrective Action Taken for details.

Marsh Landing Generating Station Major Facility Review Permit Deviation Summary

January 1, 2020 – December 31, 2020

Deviation Item No.	Permitted Source	Requirement or Limit	Deviation Period				No. of Dev	Cause of Deviation	Corrective Action Taken
			Start		End				
			Date	Time	Date	Time			
9	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	4/13/20	18:37	4/13/20	21:14	5925 RCA#07T02	See Deviation #3 & 4 Cause of Deviation for details.	See Deviation #3 & 4 Corrective Action Taken for details.
10	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	5/16/20	19:11	5/16/20	20:28	5955 RCA#07T25	See Deviation #3 & 4 Cause of Deviation for details.	See Deviation #3 & 4 Corrective Action Taken for details.
11	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	5/26/20	16:32	5/26/20	23:00	5956 RCA#07T50	See Deviation #3 & 4 Cause of Deviation for details.	See Deviation #3 & 4 Corrective Action Taken for details.
12	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	5/27/20	13:32	5/27/20	17:01	5957 RCA07T53	See Deviation #3 & 4 Cause of Deviation for details.	See Deviation #3 & 4 Corrective Action Taken for details.
13	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	6/3/20	18:22	6/3/20	20:47	5983 RCA#07T64	See Deviation #3 & 4 Cause of Deviation for details.	See Deviation #3 & 4 Corrective Action Taken for details.

Marsh Landing Generating Station Major Facility Review Permit Deviation Summary

January 1, 2020 – December 31, 2020

Deviation Item No.	Permitted Source	Requirement or Limit	Deviation Period				No. of Dev	Cause of Deviation	Corrective Action Taken
			Start		End				
			Date	Time	Date	Time			
14	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	6/5/20	16:17	6/5/20	17:13	5986 RCA#07T66	See Deviation #3 & 4 Cause of Deviation for details.	See Deviation #3 & 4 Corrective Action Taken for details.
15	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	6/25/20	13:47	6/25/20	21:59	6009 RCA#07T82	See Deviation #3 & 4 Cause of Deviation for details. ;	Operation of S-1 on June 25, 2020 was for retesting of POCs in compliance with BAAQMD approved test protocol. S-1 POC source test demonstrated passing results. BAAQMD accepted the test results on November 9, 2020.
16	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	7/8/2020	18:44	7/8/20	22:03	6012 RCA#07T92	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.
17	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	7/27/20	14:28	7/28/20	00:18	6013 RCA#07U17	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.
18	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	7/30/20	17:53	7/30/20	22:59	6014 RCA#07U20	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.

Marsh Landing Generating Station Major Facility Review Permit Deviation Summary

January 1, 2020 – December 31, 2020

Deviation Item No.	Permitted Source	Requirement or Limit	Deviation Period				No. of Dev	Cause of Deviation	Corrective Action Taken
			Start		End				
			Date	Time	Date	Time			
19	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	8/14/20	14:17	8/15/20	17:59	6037 RCA#07U56	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.
20	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	8/15/20	12:47	8/15/20	16:51	6038 RCA#07U59	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.
21	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	8/15/20	18:36	8/16/20	06:00	6039 RCA#07U58	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.
22	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	8/16/20	17:17	8/16/20	22:16	6040 RCA#07U53	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.
23	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	8/17/20	11:48	8/18/20	00:47	6041 RCA#07U61	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.

Marsh Landing Generating Station Major Facility Review Permit Deviation Summary

January 1, 2020 – December 31, 2020

Deviation Item No.	Permitted Source	Requirement or Limit	Deviation Period				No. of Dev	Cause of Deviation	Corrective Action Taken
			Start		End				
			Date	Time	Date	Time			
24	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	8/18/20	15:17	8/18/20	23:47	6042 RCA#07U62	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.
25	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	8/19/20	02:47	8/19/20	04:59	6043 RCA#07U67	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.
26	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	8/19/20	07:49	8/19/20	20:59	6044 RCA#07U68	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.
27	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	8/26/20	06:47	8/26/20	08:01	6068 RCA#07U88	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.
28	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	8/28/20	16:40	8/28/20	20:32	6073 RCA#07U92	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.

Marsh Landing Generating Station Major Facility Review Permit Deviation Summary

January 1, 2020 – December 31, 2020

Deviation Item No.	Permitted Source	Requirement or Limit	Deviation Period				No. of Dev	Cause of Deviation	Corrective Action Taken
			Start		End				
			Date	Time	Date	Time			
29	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	8/30/20	14:47	8/30/20	16:02	6074 RCA#07U93	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.
30	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	8/30/20	20:50	8/30/20	22:01	6075 RCA#07U94	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.
31	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	9/5/20	15:07	9/5/20	22:59	6081 RCA#07V13	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.
32	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	9/6/20	16:19	9/6/20	18:40	6087 RCA#07V14	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.
33	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	9/6/20	19:00	9/6/20	21:46	6090 RCA#07V12	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.

Marsh Landing Generating Station Major Facility Review Permit Deviation Summary

January 1, 2020 – December 31, 2020

Deviation Item No.	Permitted Source	Requirement or Limit	Deviation Period				No. of Dev	Cause of Deviation	Corrective Action Taken
			Start		End				
			Date	Time	Date	Time			
34	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	9/8/20	02:23	9/8/20	03:50	6092 RCA#07V15	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.
35	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	9/8/20	12:48	9/8/20	14:01	6093 RCA#07V27	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.
36	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	9/9/20	00:02	9/9/20	05:59	6094 RCA#07V29	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.
37	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	9/9/20	07:05	9/9/20	06:02	6095 RCA#07V31	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.
38	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	9/30/20	17:20	9/30/20	22:02	6113 RCA#07V66	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.

Marsh Landing Generating Station Major Facility Review Permit Deviation Summary

January 1, 2020 – December 31, 2020

Deviation Item No.	Permitted Source	Requirement or Limit	Deviation Period				No. of Dev	Cause of Deviation	Corrective Action Taken
			Start		End				
			Date	Time	Date	Time			
39	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	10/1/20	15:20	10/1/20	19:36	6114 RCA#07V69	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.
40	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	10/5/20	17:17	10/5/20	22:03	6115 RCA#07V77	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.
41	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	10/16/20	16:20	10/16/20	19:21	6134 RCA#07W00	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.
42	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	10/17/20	13:50	10/17/20	16:05	6135 RCA#07W01	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.
43	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	10/17/20	19:47	10/17/20	23:02	6136 RCA#07W02	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.

Marsh Landing Generating Station Major Facility Review Permit Deviation Summary

January 1, 2020 – December 31, 2020

Deviation Item No.	Permitted Source	Requirement or Limit	Deviation Period				No. of Dev	Cause of Deviation	Corrective Action Taken
			Start		End				
			Date	Time	Date	Time			
44	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	10/18/20	14:50	10/18/20	22:03	6148 RCA#07W04	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.
45 & 46	S-2	NOx 20.83 lb/hr, and 0.00946 lb/mmbtu; and 2.5 ppm Limits, Condition 17a and b	10/19/20	19:02	10/19/20	20:06	6154 RCA#07W12 RCA#07W13	Failed inlet CO analyzer pump while Unit 2 was online required maintenance/replacement. While the CEMS was in maintenance mode the ammonia control system erroneously continued to react to inlet CEMS signals which resulted in under injection of ammonia and therefore excess NOx. CEMS data logger was found to experience significant time lag when placed into maintenance mode. Data logger logic was found to have a flaw causing the under injection of ammonia and excess NOx.	The inlet CO analyzer pump was replaced. To correct the CEMS data logger, the CEMS control/response logic was updated on October 30, 2020 with a more rapid response time (10-20 seconds) on the maintenance switch. In addition, a procedure was added to the operations procedure to verify that the ammonia flow control system is locked into an acceptable value for turbine operation before the maintenance procedure can continue.
47	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	10/19/20	13:42	10/19/20	21:19	6152 RCA#07W14	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.
48	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	10/19/20	22:18	10/19/20	23:32	6153 RCA#07W15	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.

Marsh Landing Generating Station Major Facility Review Permit Deviation Summary

January 1, 2020 – December 31, 2020

Deviation Item No.	Permitted Source	Requirement or Limit	Deviation Period				No. of Dev	Cause of Deviation	Corrective Action Taken
			Start		End				
			Date	Time	Date	Time			
49	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	10/20/20	14:42	10/20/20	18:35	6170 RCA#07W17	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.
50	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	10/20/20	19:50	10/20/20	21:05	6171 RCA#07W18	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.
51	S-1	POC 2.9 lb/hr, and 0.00132 lb/mmbtu Limit, Condition 17f	11/5/20	14:12	11/5/20	21:17	6220 RCA#07W59	See Deviation #3 & 4 Cause of Deviation for details.	Source testing on June 25, 2020 demonstrated compliance with the POC emission limits. Notification made in an abundance of caution until BAAQMD approved test report on November 9, 2020.

Marsh Landing Generating Station
Excess Emissions Reports
January 1 to December 31, 2020

(Provided on flash drive)

Summary Table

Episode Date	Unit	RCA ID #'s	BRK/Ex EM	Pollutant	BAAQMD Deviation #
1/8/20	U4	07R25/ 07R26	Breakdown/Excess Emissions	NOx	5769
1/16/20	U4	07R37/ 07R36	Breakdown/Excess Emissions	NOx	6147
1/16/2020	U1	07R45	Excess Emissions	POC	5774
2/19/2020	U1	07S00	Excess Emissions	POC	5850
3/13/2020	U1	07S68	Excess Emissions	CO	5890
3/13/2020	U1	07S70	Excess Emissions	POC	5891
3/21/2020	U1	07S80	Excess Emissions	POC	6145
4/13/2020	U1	07T02	Excess Emissions	POC	5925
5/16/2020	U1	07T25	Excess Emissions	POC	5955
5/26/2020	U1	07T50	Excess Emissions	POC	5956
5/27/2020	U1	07T53	Excess Emissions	POC	5957
6/3/2020	U1	07T64	Excess Emissions	POC	5983
6/5/2020	U1	07T66	Excess Emissions	POC	5986
6/25/2020	U1	07T82	Excess Emissions	POC	6009
7/8/2020	U1	07T92	Excess Emissions	POC	6012
7/27/2020	U1	07U17	Excess Emissions	POC	6013
7/30/2020	U1	07U20	Excess Emissions	POC	6014
8/14-15/2020	U1	07U56	Excess Emissions	POC	6037
8/15/2020	U1	07U59	Excess Emissions	POC	6038
8/15-16/2020	U1	07U58	Excess Emissions	POC	6039
8/16/2020	U1	07U53	Excess Emissions	POC	6040
8/17-18/2020	U1	07U61	Excess Emissions	POC	6041
8/18/2020	U1	07U62	Excess Emissions	POC	6042
8/19/2020	U1	07U67	Excess Emissions	POC	6043
8/19/2020	U1	07U68	Excess Emissions	POC	6044
8/26/2020	U1	07U88	Excess Emissions	POC	6068
8/28/2020	U1	07U92	Excess Emissions	POC	6073
8/30/2020	U1	07U93	Excess Emissions	POC	6074
8/30/2020	U1	07U94	Excess Emissions	POC	6075
9/5/2020	U1	07V13	Excess Emissions	POC	6081
9/6/2020	U1	07V14	Excess Emissions	POC	6087

Episode Date	Unit	RCA ID #	Breakdown/Excess Emissions	Pollutant	BAAQMD Deviation #
9/6/2020	U1	07V12	Excess Emissions	POC	6090
9/8/2020	U1	07V15	Excess Emissions	POC	6092
9/8/2020	U1	07V27	Excess Emissions	POC	6093
9/9/2020	U1	07V29	Excess Emissions	POC	6094
9/9/2020	U1	07V31	Excess Emissions	POC	6095
9/30/2020	U1	07V66	Excess Emissions	POC	6113
10/1/2020	U1	07V69	Excess Emissions	POC	6114
10/5/2020	U1	07V77	Excess Emissions	POC	6115
10/16/2020	U1	07W00	Excess Emissions	POC	6134
10/17/2020	U1	07W01	Excess Emissions	POC	6135
10/17/2020	U1	07W02	Excess Emissions	POC	6136
10/18/2020	U1	07W04	Excess Emissions	POC	6148
10/19/2020	U2	07W12	Breakdown	NOX	6154
10/19/2020	U2	07W13	Excess Emissions	NOX	6154
10/19/2020	U1	07W14	Excess Emissions	POC	6152
10/19/2020	U1	07W15	Excess Emissions	POC	6153
10/20/2020	U1	07W17	Excess Emissions	POC	6170
10/20/2020	U1	07W18	Excess Emissions	POC	6171
11/5/2020	U1	07W59	Excess Emissions	POC	6220