Clearway Energy Energy Center San Francisco LLC BAY AREA AIR QUALITA Mint Plaza, Suite 200 MANAGEMENT DISTRICT San Francisco, CA. 94103-1835

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August 6, 2019

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

Dear Sir/Madam,

Attached is the Title V Monitoring Report from the Energy Center San Francisco, LLC. This report covers the period from February 1, 2019 to July 31, 2019. During this period, we have maintained continuous compliance with all requirements.

Sincerely,

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Ted Vincent Plant Manager NRG Energy Center San Francisco 14 Mint Plaza, Suite 200, San Francisco, CA 94103 Office: 415.777.3415 Direct: 415.644.9784

August 6, 2019 Facility # B6151 A8688 (Site # A8688 JWK 12/19/19 Site # A8988 Facility ID 16151

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

Subject: Title V Semi-Annual Monitoring Report for the period February 1, 2019 to July 31, 2019

The Energy Center San Francisco herewith submits the Semi-Annual Report for Facility B6151. This report includes detailed reports and compliance reporting for the following sources for the Semi-Annual period February 1, 2019 to July 31, 2019:

S-3: Boiler 3 Status: Full Compliance

S-4: Boiler 4 Status: Full Compliance

S-5: Boiler 5 Status: Full Compliance

S-6: Boiler 6 Status: Full Compliance

S-7: Boiler 7 Status: Full Compliance

S-9: Boiler 8 Status: Full Compliance

S10: UST Tank #3 Status: Full Compliance (exempt source)

S-11: UST Tank #4 Status: Full Compliance (exempt source) S-12: UST Tank #5 Status: Full Compliance (exempt source)

S-13: Emergency Standby Diesel Engine Status: Full Compliance

S-21: Reciprocating Engine, 375 Hp, Natural gas only, cogeneration Status: Full Compliance

S-22: Reciprocating Engine, 375 Hp, Natural gas only, cogeneration Status: Full Compliance

Compliance Certification

Based on information and belief formed after reasonable inquiry, the statements and information in this report and the attached Compliance Certification Report form are true, accurate, and complete.

Sincerely,

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Ted Vincent Plant Manager Facility #B6151

VII. APPLICABLE LIMITS & COMPLIANCE MONITORING REQUIREMENTS

Type of limit	Citation of Limit	FE Y/N	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance Status
Oxides of	BAAOMD	N	30 ppmy dry @ 3% O2	BAAOMD	P/A	Source Test	Continuous
Nitrogen	9-7-301 1		50 ppint, dry @ 570 02	Condition	1771	Source rest	Continuous
introgen	, , , , , , , , , , , , , , , , , , , ,			#21200 part 10			
	BAAOMD	N	$40 \text{ pnmy} \text{ dry} @ 3\% \text{ O}_2$	BAAOMD	P/A	Source Test	Continuous
	9-7-301 2		10 pp, dry (g 570 02	Condition		Source rest	
	, , 501.2			#21200. part 10			
	BAAOMD	N	9 ppmy, dry $@$ 3% O ₂	BAAOMD	P/A	Source Test	Continuous
	9-7-307.5		, pp, a.y (5,7002	9-7-403		Source rest	
	, , , , , , , , , , , , , , , , , , , ,			9-7-506			
	SIP	Y	30 ppmy, dry @ 3% O ₂		P/A	Source test	Continuous
	9-7-301.1						
	SIP	Y	150 ppmv, dry @ 3%		P/A	Source test	Continuous
	9-7-305.1		O2				
	SIP	Y	150 ppmv, dry @ 3%		N		Continuous
	9-7-306.1		O ₂				
Carbon	BAAQMD	N	400 ppmv, dry @ 3%	BAAQMD	P/A	Source Test	Continuous
Monoxide	9-7-301.4		O2	Condition			
				#21200, part 10			
	BAAQMD	N	400 ppmv, dry @ 3%	BAAQMD	P/A	Source Test	Continuous
	9-7-307.5		O ₂	9-7-403,			
				9-7-506			
	SIP	Y	400 ppmv, dry @ 3%		P/A	Source test	Continuous
	9-7-301.2		O2				
	SIP	Y	400 ppmv, dry @ 3%		P/A	Source test	Continuous
	9-7-305.2		O2				
	SIP	Y	400 ppmv, dry @ 3%		N		Continuous
	9-7-306.2		O2				
Opacity	BAAQMD	N	\geq Ringelmann No. 1 for		N		Continuous
	6-1-301		no more than 3 minutes				
			in any one hour				
Opacity	SIP 6-301	Y	\geq Ringelmann No. 1 for		Ν		Continuous
			no more than 3 minutes				
			in any one hour				

Table VII-AS-3 BOILER NO. 3 & S-4 BOILER NO. 4

Type of limit	Citation of Limit	FE Y/N	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance Status
FP	BAAQMD	N	0.15 grain/dscf		N		Continuous
	6-1-310.3		@ 6% O ₂				
FP	SIP 6-	Y	0.15 grain/dscf		N		Continuous
	310.3		@ 6% O2				
SO2	SIP 9-1-	Y	300 ppm (dry)		N		Continuous
	302						
	SIP 9-1-	Y	Sulfur content of fuel	~	N		Continuous
	304		<0.5% by weight				
SO2	BAAQMD	N	300 ppm (dry)		N		Continuous
	9-1-302						
	BAAQMD	N	Sulfur content of fuel		N		Continuous
	9-1-304		<0.5% by weight				
Stack Gas	BAAQMD	N	150°F over saturated		N		Continuous
Temperatur	9-7-312		steam temperature				
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Table VII-AS-5 BOILER NO. 5 & S-6 BOILER NO. 6

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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 Status
Oxides of Nitrogen	BAAQMD 9-7-112.2	N	30 ppmv, dry @ 3% O ₂	BAAQMD Condition	P/A	Source Test	Continuous
	SIP 9-7-301.1	Y	30 ppmv, dry @ 3% O ₂	#21200, part 10	N		Continuous
	SIP 9-7-303	Y	Weighted average of 9- 7-301.1 and 9-7-302.1	SIP 9-7-501	С	Non- resettable fuel meters	Continuous
	SIP 9-7-305.1	Y	150 ppmv, dry @ 3% O2		N		Continuous
	SIP 9-7-306.1	Y	150 ppmv, dry @ 3% O2		N		Continuous
Carbon Monoxide	BAAQMD 9-7-112.2	N	400 ppmv, dry @ 3% O2	BAAQMD Condition #21200, part 10	P/A	Source test	Continuous
	BAAQMD 9-7-307.6	N	400 ppmv, dry @ 3% O2	BAAQMD 9-7-403, 9-7-506	P/A	Source Test	Continuous
	SIP 9-7-301.2	Y	400 ppmv, dry @ 3% O2		N		Continuous
	SIP 9-7-305.2	Y	400 ppmv, dry @ 3% O2		N		Continuous
	SIP 9-7-306.2	Y	400 ppmv, dry @ 3% O2		N		Continuous
Opacity	BAAQMD 6-1-301	N	≥ Ringelmann No. 1 for no more than 3 minutes in any one hour		Ν		Continuous
	SIP 6-301	Y	≥ Ringelmann No. 1 for no more than 3 minutes in any one hour		N		Continuous
FP	BAAQMD 6-1-310.3	N	0.15 grain/dscf @ 6% O ₂		N		Continuous
FP	SIP 6- 310.3	Y	0.15 grain/dscf @ 6% O ₂		N		Continuous
SO2	SIP 9-1- 302	Y	300 ppm (dry)		N		Continuous

Type of limit	Citation of Limit	FE Y/N	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance Status
	SIP 9-1-	Y	Sulfur content of fuel		N		Continuous
	304		<0.5% by weight				
	BAAQMD 9-1-302	Ν	300 ppm (dry)		Ν		Continuous
Fuel Sulfur Content	BAAQMD 9-1-304	N	Sulfur content of fuel <0.5% by weight		N		Continuous
Stack Gas Temperatur e	BAAQMD 9-7-312	N	150°F over saturated steam temperature		N		Continuous

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Table VII-CS-7 BOILER NO. 7

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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 Status
Oxides of Nitrogen	BAAQMD 9-7-301.1	N	30 ppmv, dry @ 3% O ₂	BAAQMD Condition #21200, part 10	P/A	Source Test	Continuous
	BAAQMD 9-7-301.2	N	40 ppmv, dry @ 3% O2	BAAQMD Condition #21200, part 10	P/A	Source Test	Continuous
×	BAAQMD 9-7-307.4	N	15 ppmv, dry @ 3% O ₂	BAAQMD 9-7-403, 9-7-506	P/A	Source Test	Continuous
	SIP 9-7-301.1	Y	30 ppmv, dry @ 3% O ₂		P/A	Source test	Continuous
	SIP 9-7-303	Y	Weighted average of 9- 7-301.1 and 9-7-302.1	SIP 9-7-501	С	Non- resettable fuel meters	Continuous
Oxides of Nitrogen	SIP 9-7-305.1	Y	150 ppmv, dry @ 3% O2		P/A	Source test	Continuous
	SIP 9-7-306.1	Y	150 ppmv, dry @ 3% O2		N		Continuous
Carbon Monoxide	BAAQMD 9-7-301.4	N	400 ppmv, dry @ 3% O2	BAAQMD Condition #21200, part 10	P/A	Source Test	Continuous
	BAAQMD 9-7-307.4	N	400 ppmv, dry @ 3% O2	BAAQMD 9-7-403, 9-7-506	P/A	Source Test	Continuous
	SIP 9-7-301.2	Y	400 ppmv, dry @ 3% O2		P/A	Source test	Continuous
	SIP 9-7-305.2	Y	400 ppmv, dry @ 3%		P/A	Source test	Continuous
	SIP 9-7-306.2	Y	400 ppmv, dry @ 3% O2		N		Continuous
Opacity	BAAQMD 6-1-301	N	≥ Ringelmann No. 1 for no more than 3 minutes in any one hour		N		Continuous
	SIP 6-301	Y	≥ Ringelmann No. 1 for no more than 3 minutes in any one hour		N		Continuous

Type of limit	Citation of Limit	FE Y/N	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance Status
FP	BAAQMD	N	0.15 grain/dscf		N		Continuous
	6-1-310.3		@ 6% O ₂				
	SIP 6-	Y	0.15 grain/dscf		N		Continuous
	310.3		@ 6% O2				
SO2	SIP 9-1-	Y	300 ppm (dry)		N		Continuous
	302						
	SIP 9-1-	Y	Sulfur content of fuel		N		Continuous
	304		<0.5% by weight				
	BAAQMD	N	300 ppm (dry)		N		Continuous
	9-1-302						
Fuel Sulfur	BAAQMD	N	Sulfur content of fuel		N		Continuous
Content	9-1-304		<0.5% by weight				
Stack Gas	BAAQMD	N	150°F over saturated		N		Continuous
Temperatur	9-7-312		steam temperature				
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Table VII-D S-9 Boiler No. 8

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Type of limit	Citation of Limit	FE Y/N	Limit	Monitoring Requirement Citation	Monito ring Freque ncy (P/C/N)	Monitoring Type	Compliance Status
Oxides of Nitrogen	BAAQMD 9-7-301.1		30 ppmv, dry @ 3% O ₂	BAAQMD Condition	P/A	Source Test	Continuous
	BAAQMD 9-7-301.2		40 ppmv, dry @ 3% O2	#21200, part 10 BAAQMD Condition #21200, part 10	P/A	Source Test	Continuous
	BAAQMD 9-7-307.6		5 ppmv, dry @ 3% O2	BAAQMD 9-7-403, 9-7-506	P/A	Source Test	Continuous
	SIP 9-7-301.1		30 ppmv, dry @ 3% O ₂		N		Continuous
	BAAQMD Condition #21200, part 3		9 ppmv, dry @ 3% O ₂ , averaged over 3 hours	BAAQMD Condition #21200, part 9	P/A	Source Test	Continuous
Carbon Monoxide	BAAQMD 9-7-301.4		400 ppmv, dry @ 3% O ₂	BAAQMD Condition #21200, part 10	P/A	Source Test	Continuous
	BAAQMD 9-7-307.6		400 ppmv, dry @ 3% O2	BAAQMD 9-7-403, 9-7-506	P/A	Source Test	Continuous
Carbon Monoxide	SIP 9-7-301.2		400 ppmv, dry @ 3% O ₂		N		Continuous
	BAAQMD Condition #21200, part 4		50 ppmv, dry @ 3% O ₂ , averaged over 3 hours	BAAQMD Condition #21200, part 9	P/initial	Source Test	Continuous
Opacity	BAAQMD 6-1-301		≥ Ringelmann No. 1 for no more than 3 minutes in any one hour		N		Continuous
	SIP 6-301		≥ Ringelmann No. 1 for no more than 3 minutes in any one hour		Ν		Continuous
FP	BAAQMD 6-1-310.3		0.15 grain/dscf @ 6% O2		N		Continuous

Type of limit	Citation of Limit	FE Y/N	Limit	Monitoring Requirement Citation	Monito ring Freque ncy (P/C/N)	Monitoring Type	Compliance Status
	SIP 6- 310.3		0.15 grain/dscf @ 6% O2		N		Continuous
SO2	BAAQMD 9-1-302		300 ppm (dry)		N		Continuous
	BAAQMD 9-1-304		Sulfur content of fuel <0.5% by weight		N		Continuous
	SIP 9-1- 302		300 ppm (dry)		N		Continuous
Heat Input Rate	BAAQMD Condition #21200, part 1		99.93 MMBTU/hr	BAAQMD Condition #21200, part 11	P/M	Records	Continuous
Fuel usage	BAAQMD Condition #21200, part 5		8,730,000 therms per rolling 12 months	BAAQMD Condition #21200, part 11	P/M	Records	Continuous
Stack Gas Temperatur e	BAAQMD 9-7-312	1/1/1 3	150°F over saturated steam temperature		N		Continuous

Table VII-E Applicable Limits and Compliance Monitoring Requirements S-13 STANDBY GENERATOR DIESEL ENGINE

Type of Limit	Citation of Limit	FE Y/N	Limit	Monitoring Requirement Citation	Monitor ing Frequen cy (P/C/N)	Monitoring Type	Compliance Status
Opacity	BAAQMD 6-1-303.1	N	Existing Register Section 2 Ringelmann No. 2 for no more than 3 minutes in any		N		Continuous
	SIP 6- 303.1	Y	hour ≥ Ringelmann No. 2 for no more than 3 minutes in any hour		N		Continuous
FP	BAAQMD 6-1-310.3	N	0.15 grain/dscf @ 6% O2		N		Continuous
	SIP 6- 310.3	Y	0.15 grain/dscf @ 6% O2		N		Continuous
SO2	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		Continuous
	BAAQMD 9-1-304	N	Fuel sulfur content limit of 0.5% by weight		N		Continuous
	SIP 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		Continuous
	SIP 9-1- 304	Y	Fuel sulfur content limit of 0.5% by weight		N		Continuous
Hours of Operatio n	BAAQMD condition #22820, part 1		20 hours per year discretionary operation	BAAQMD condition #22820, part 3	С	Totalizing counter	Continuous

Fuel Usage by Boiler

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Boiler / Source	Natural Gas (therms)	Diesel Oil (gal)	Comments
Boiler 3 / S3	21872	0	
Boiler 4 / S4	1063111	0	
Boiler 5 / S5	247069	0	
Boiler 6 / S6	430547	0	
Boiler 7 / S7	2838423	0	
Boiler 8 / S9	1391628	0	
Total	5992649	0	

Note: Heat content Natural Gas fuel is 1013 BTU/scf.

Emergency Standby Generator Log (S-13)

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Date	Hour	Meter Rea	ading	Total	12 mo. Rolling	Total Fuel Usage	Notes	
Dale	Time	Start	Stop	Hours	(hrs)	Usage (gal)		
1/31/19	0	0300.9	0300.9	0	0	0	Note: This entry is from the prior report.	
2/1/19 to 7/31/19	0	0300.9	0300.9	0	0	0	Note: There was no usage during this period.	
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