LOS ESTEROS CRITICAL ENERGY FACILITY, LLC

800 Thomas Foon Chew Way
San Jose, CA 95134

February 28, 2023

Director of Compliance and Enforcement
Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, CA 94105
Attn: Title V Reports
Via Email: compliance@baaqmd.gov

TV Tracking #: 616

1. ☐ RECEIVED IN ENFORCEMENT: 03/01/2023

Re: Los Esteros Critical Energy Facility #B3289
Title V Semi-Annual Monitoring Report
Reporting Period: June 1, 2022 – November 30, 2022

To Whom It May Concern:

In response to the Notice to Comply # A48451 issued by BAAQMD to the Los Esteros Critical Energy Facility ("LECEF") on February 15, 2023, LECEF is resubmitting the original Title V Semi-Annual Monitoring Report, for reporting period June 1, 2022 – November 30, 2022. Also included, as requested in the NTC, are the NOx and CO 1-minute emissions data for the reporting period, as well as the calculated 1-clock hour averages.

The permit conditions reference limits as 1-hour rolling averages, although that term is not defined in the permit. The permit does define a clock hour as any continuous 60-minute period beginning on the hour. Furthermore, BAAQMD Manual of Procedures 8.3.2 states that excess emissions occur when the average concentration over any clock hour exceeds the emission standard. Accordingly, LECEF uses 1-clock hour averages to determine compliance with the NOx and CO 1-hour rolling average limits. Based on that methodology, this letter serves to certify compliance with all NOx and CO 1-hour rolling average limits in the Title V permit during the reporting period. Further we note that Table VII-A in the permit references 1-hour averages, not 1-hour rolling averages.

LECEF is currently in compliance with District regulations and maintained compliance with the monitoring requirements listed in the Title V permit, during the reporting period for CT-1, CT-2, CT-3, and CT-4.

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

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

Sincerely,

Kevin Karwick
General Manager and
Responsible Official/Designated Representative
Los Esteros Critical Energy Facility, LLC

Enclosures

cc: John Heiser, Region 9
CEC AQ-34
EPA

Los Esteros Critical Energy Facility
Title V CEMS Semi-Annual Monitoring Report
June 1, 2022 – November 30, 2022

Table VII - A
Applicable Limits and Compliance Monitoring Requirements
S-1, S-2, S-3, & S-4 COMBUSTION GAS TURBINES WITH WATER INJECTION,
S-7, S-8, S-9 & S-10 HEAT RECOVERY STEAM GENERATORS

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
NOx	BAAQMD 9-9-301.2	N		9 ppmv @ 15% O2, dry Or 0.43 lbs./MW-hr.	BAAQMD 9-9-501 and BAAQMD condition #23868, part 25c	C	CEM	X	
NOx	BAAQMD 9-9-301.3	Y		9 ppmv @ 15% O2, dry	BAAQMD 9-9-501 and BAAQMD condition #23868, part 25c	C	CEM	X	
NOx	NSPS Subpart KKKK 40 CFR 60.4320(a) and (h)	Y		25 ppmv @ 15% O2, dry 30 day rolling average	NSPS 40 CFR 60.4335(b)(1)	C	CEM	X	
NOx	None	Y		None	40 CFR 75.10	C	CEM	X	
NOx	BAAQMD condition #23688, part 19a	Y		2 ppmv @ 15% O2, dry, 1-hr average except during turbine startup or shutdown	BAAQMD condition #23688, parts 19a and 25c	C	CEM	X	
NOx	BAAQMD condition #23688, part 19a	Y		2 ppmv @ 15% O2, dry, 1-hr average except during turbine startup or shutdown	BAAQMD condition #23688, part 26b.a	P/every 8000 hrs. of operation or every 3 years, whichever is sooner	Source test	X	
NOx (as NO_2)	BAAQMD condition #23688, part 22	Y		175.6 lb./day for each turbine/HRSG power train including startup and shutdown	BAAQMD condition #23688, part 25c	C	CEM	X	

Los Esteros Critical Energy Facility
Title V CEMS Semi-Annual Monitoring Report
June 1, 2022 – November 30, 2022

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
NOx (as NO_2)	BAAQMD condition #23688 part 22	Y		702.4 lb/day (as NO2) for all turbines and HRSGS combined, including startup and shutdown	BAAQMD condition #23688, part 25c	C	CEM	**X**	
NOx (as NO_2)	BAAQMD condition #23688, part 22	Y		94.1 tons per year (as NO2) for all turbines and HRSGs combined, including startup or shutdown	BAAQMD condition #23688, part 25c	C	CEM	**X**	
NOx	BAAQMD condition #23688 part 20	Y		41 lb./turbine/startup during startup not to exceed 120 minutes	BAAQMD condition #23688 part 25c	C	CEM	**X**	
CO	BAAQMD condition #23688, part 19c	Y		2 ppmv @ 15% O2, dry, 1-hr average except during turbine startup or shutdown	BAAQMD condition #23688, parts 19c and 25c	C	CEM	**X**	
CO	BAAQMD condition #23688, part 19c	Y		2 ppmv @ 15% O2, dry, 1-hr average except during turbine startup or shutdown	BAAQMD condition #23688, part 26c	P/every 8000 hrs. of operation or every 3 years, whichever is sooner	Source test	**X**	
CO	BAAQMD condition #23688, part 19c	Y		2.85 lb. CO/hr. for each turbine, 1-hr average except during turbine startup or shutdown	BAAQMD condition #23688, parts 19c and 25c	C	CEM	**X**	
CO	BAAQMD condition #23688, part 19c	Y		2.85 lb. CO/hr. for each turbine, 1-hr average except during turbine startup or shutdown	BAAQMD condition #23688, parts 19c and 25c	P/A	Source Test	**X**	
CO	BAAQMD condition #23688, part 22	Y		97 lb./day for each turbine/HRSG power train including startup and shutdown	BAAQMD condition #23688, part 25c	C	CEM	**X**	
CO	BAAQMD condition #23688, part 22	Y		388 lb./day for all turbines and HRSG combined, including startup and shutdown	BAAQMD condition #23688, part 25c	C	CEM	**X**	

Los Esteros Critical Energy Facility
Title V CEMS Semi-Annual Monitoring Report
June 1, 2022 – November 30, 2022

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
CO	BAAQMD condition #23688, part 22	Y		53.4 tons per year for all turbines and HRSGs combined, including startup and shutdown	BAAQMD condition #23688, part 25c	C	CEM	**X**	
CO	BAAQMD condition #23688, part 20	Y		20 lb./turbine/startup during startup not to exceed 120 minutes	BAAQMD condition #23688, part 25c	C	CEM	**X**	
CO_2		Y		None	40 CFR 75.10	C	CEM (CO2) or CEM (O2) or fuel flow monitor	**X**	
SO_2	BAAQMD 9-1-301	Y		GLC[1] of 0.5 ppm for 3 min or 0.25 ppm for 60 min or 0.05 ppm for 24 hours		N		**X**	
SO_2	BAAQMD 9-1-302	Y		300 ppm (dry)	BAAQMD Condition 23688, Part 26f	P/every 8000 hrs. of operation or every 3 years, whichever is sooner	Source test for flow and sulfur data	**X**	
SO_2	NSPS Subpart KKKK 40 CFR 60.4330 (a)(2)	Y		0.060lb SO2/MMBtu	NSPS 40 CFR 60.4365(a)	N	None	**X**	
SO_2	None	Y		None	40 CFR 75.11, 40 CFR 75, Appendix D, part 2.3		Fuel measure-ments, calculations	**X**	
SO_2	BAAQMD condition #23688, part 22	Y		6.43 tons/calendar year for all turbines and HRSGs combined including startup and shutdown of turbines	BAAQMD Condition 23688, Part 26f	P/every 8000 hrs. of operation or every 3 years, whichever is sooner	Source Test for flow and sulfur data	**X**	

Los Esteros Critical Energy Facility
Title V CEMS Semi-Annual Monitoring Report
June 1, 2022 – November 30, 2022

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
S in Fuel	BAAQMD condition #23688, part 24b	Y		1.0 gr S/100 scf natural gas	BAAQMD condition #23688, part 24b	P/Q	Vendor data	**X**	
S in Fuel	BAAQMD condition #23688, part 24b	Y		1.0 gr S/100 scf natural gas	BAAQMD condition #23688, part 26b.g	P/every 8000 hrs. of operation or every 3 years, whichever is sooner	Source test/Fuel analysis	**X**	
Opacity	BAAQMD 6-1-301	N		> Ringelmann No. 1 for no more than 3 minutes in any hour		N	None	**X**	
Opacity	SIP 6-301	Y		> Ringelmann No. 1 for no more than 3 minutes in any hour		N	None	**X**	
Opacity	BAAQMD condition #23688, part 18	Y		> Ringelmann No. 1 for no more than 3 minutes in any hour or equivalent 20% opacity		N	None	**X**	
FP	BAAQMD 6-1-310	Y		0.15 grain/dscf		N	None	**X**	
FP	SIP 6-310	Y		0.15 grain/dscf		N	None	**X**	
FP	BAAQMD 6-1-3103	Y		0.15 grain/dscf @ 6% O2		N		**X**	
FP	SIP 6-310	Y		0.15 grain/dscf @ 6% O2		N		**X**	
PM_{10}	BAAQMD condition #23688, part 22	Y		38.5 tons/year for all turbines and HRSGS combined including startup and shutdown of turbines	BAAQMD condition #23688 part 26e	P/every 8000 hrs. of operation or every 3 years, whichever is sooner	Source test, records & calculation	**X**	
POC	BAAQMD condition #23688, part 19d	Y		1 ppmv @ 15% O2, dry, 1-hr average except during turbine startup or shutdown	BAAQMD condition #23688, part 26d	P/every 8000 hrs. of operation or every 3 years, whichever is sooner	Source Test	**X**	

Los Esteros Critical Energy Facility
Title V CEMS Semi-Annual Monitoring Report
June 1, 2022 – November 30, 2022

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
POC	BAAQMD condition #23688, part 22	Y		20.2 lb./day for each turbine/HRSG power train including startup and shutdown	BAAQMD condition #23688, part 26d	P/every 8000 hrs. of operation or every 3 years, whichever is sooner	P/every 8000 hrs. of operation or every 3 years, whichever is sooner	X	
POC	BAAQMD condition #23688, part 22	Y		80.8 lb/day for all turbines and HRSG combined, including startup and shutdown	BAAQMD condition #23688, part 26d	P/every 8000 hrs. of operation or every 3 years, whichever is sooner	P/every 8000 hrs. of operation or every 3 years, whichever is sooner	X	
POC	BAAQMD condition #23688 part 22	Y		12.3 tons/year for all turbines and HRSGs combined including startup and shutdown.	BAAQMD condition #23688, part 26d	P/A	P/every 8000 hrs. of operation or every 3 years, whichever is sooner	X	
NH_3	BAAQMD condition #23688, part 19b	N		5 ppmv @ 15% O2, dry, averaged over 3-hrs except during turbine startup or shutdown	BAAQMD condition #23688, parts 19b and 26b	C	NH_3 flow meter, calculations	X	
NH_3	BAAQMD condition #23688, part 19b	N		5 ppmv @ 15% O2, dry, averaged over 3-hrs except during turbine startup or shutdown	BAAQMD condition #23688, part 26b	P/every 8000 hrs. of operation or every 3 years, whichever is sooner	Source Test	X	
NH_3	BAAQMD condition #23688, part 22	*Y*		104 lb./day for each turbine/HRSG power train including startup and shutdown	BAAQMD condition #23688, part 25b	C	Ammonia flow meter, calculations	X	

Los Esteros Critical Energy Facility
Title V CEMS Semi-Annual Monitoring Report
June 1, 2022 – November 30, 2022

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
NH_3	BAAQMD condition #23688, part 22	Y		416 lb/day for all turbines and HRSGs combined, including startup and shutdown	BAAQMD condition #23688, part 25b	C	Ammonia flow meter, calculations	**X**	
NH_3	BAAQMD condition #23688 part 22	Y		56.9 tons/year for all turbines and HRSGs combined including startup and shutdown.	BAAQMD condition #23688, part 26b	C	Ammonia flow meter, calculations	**X**	
Formaldehyde	BAAQMD condition #23688 part 43	N		6490 lbs./year for all turbines and HRSGs combined			N	**X**	
Acetaldehyde	BAAQMD condition #23688 part 43	N		3000 lbs./year for all turbines and HRSGs combined			N	**X**	
Specific PAHs	BAAQMD condition #23688 part 43	N		3.2 lbs./year for all turbines and HRSGs combined	BAAQMD condition #23688, Parts 44 & 45	P (Startup and biennial thereafter)	Source Test	**X**	
Acrolein	BAAQMD condition #23688 part 43	N		65.3 lbs./year for all turbines and HRSGs combined	BAAQMD condition #23688, Parts 44 & 45	P (Startup and biennial thereafter)	Source Test	**X**	
Sulfuric Acid Mist	BAAQMD condition #23688 part 43	Y		7 tons/year for all turbines and HRSGs combined	BAAQMD condition #23688, Parts 27	P/every 8000 hrs. of operation or every 3 years, whichever is sooner	Source Test	**X**	
Heat input limit	BAAQMD condition #23688, part 24	Y		500 MM BTU/ hr. (HHV), for each turbine	BAAQMD condition #23688, part 25d	C	Fuel meter, firing monitor, calculations	**X**	
Heat input limit	BAAQMD condition #23688, part 24	Y		500 MM BTU/ hr. (HHV), for each turbine	BAAQMD condition #23688, part 25d	P/Q	Fuel composition analysis	**X**	

Los Esteros Critical Energy Facility
Title V CEMS Semi-Annual Monitoring Report
June 1, 2022 – November 30, 2022

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
Heat input limit	BAAQMD condition #23688, part 24	Y		500 MM BTU/ hr. (HHV), for each turbine	BAAQMD condition #23688, part 25d	P/every 8000 hrs. of operation or every 3 years, whichever is sooner	Source test	X	
Heat input limit	BAAQMD condition #23688, part 24	Y		639 MM BTU/day (HHV) for each turbine w/ Duct Burner	BAAQMD condition #23688, part 25d	C	fuel meter, firing monitor, calculations	X	
Heat input limit	BAAQMD condition #23688, part 24	Y		639 MM BTU/day (HHV) for each turbine w/ Duct Burner	BAAQMD condition #23688, part 25d	P/Q	Fuel composition Analysis	X	
Heat input limit	BAAQMD condition #23688, part 24	Y		639 MM BTU/day (HHV) for each turbine w/ Duct Burner	BAAQMD condition #23688, part 25d	P/every 8000 hrs. of operation or every 3 years, whichever is sooner	Source Test	X	
Heat input limit	BAAQMD condition #23688, part 24	Y		12,000 MM BTU/day (HHV) for each turbine	BAAQMD condition #23688, part 25d	C	fuel meter, firing monitor, calculations	X	
Heat input limit	BAAQMD condition #23688, part 24	Y		12,000 MM BTU/day (HHV) for each turbine	BAAQMD condition #23688, part 25d	P/Q	Fuel composition Analysis	X	
Heat input limit	BAAQMD condition #23688, part 24	Y		15,366 MM BTU/day (HHV) for each turbine w/ Duct Burner	BAAQMD condition #23688, part 25d	C	fuel meter, firing monitor, calculations	X	
Heat input limit	BAAQMD condition #23688, part 24	Y		15,366 MM BTU/day (HHV) for each turbine w/ Duct Burner	BAAQMD condition #23688, part 25d	P/Q	Fuel composition Analysis	X	

Los Esteros Critical Energy Facility
Title V CEMS Semi-Annual Monitoring Report
June 1, 2022 – November 30, 2022

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
Heat input limit	BAAQMD condition #23688, part 24	Y		18,215,000 MM BTU/yr. (HHV) for all turbines w/ Duct Burner	BAAQMD condition #23688, part 25d	C	fuel meter, firing monitor, calculations	**X**	
Heat input limit	BAAQMD condition #23688, part 24	Y		18,215,000 MM BTU/yr. (HHV) for all turbines w/ Duct Burner	BAAQMD condition #23688, part 25d	P/Q	Fuel composition analysis	**X**	
MW	N/A			None	BAAQMD condition #23688, part 26h	P/every 8000 hrs. of operation or every 3 years, whichever is sooner	Source test	**X**	
Gas temper-ature	N/A			None	BAAQMD condition #23688, part 26j	P/every 8000 hrs. of operation or every 3 years, whichever is sooner	Source test	**X**	
Stack gas flow	N/A			None	BAAQMD condition #23688, part 26i	P/every 8000 hrs. of operation or every 3 years, whichever is sooner	Source test	**X**	
NH_3 injection rate	N/A			None	BAAQMD condition #23688, part 26k	P/every 8000 hrs. of operation or every 3 years, whichever is sooner	Source test	**X**	
Water Injection Rate	N/A			None	BAAQMD condition #23688, part 26l	P/every 8000 hrs. of operation or every 3 years, whichever is sooner	Source test	**X**	

Los Esteros Critical Energy Facility
Title V CEMS Semi-Annual Monitoring Report
June 1, 2022 – November 30, 2022

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
Shutdown	BAAQMD condition #23688, part 24	Y		Shutdown of turbine not to exceed 30 minutes per event		P/E	CEM	X	

Los Esteros Critical Energy Facility
Title V CEMS Semi-Annual Monitoring Report
June 1, 2022 – November 30, 2022

Table VII – B
Applicable Limits and Compliance Monitoring Requirements
S-5 FIRE PUMP DIESEL ENGINE

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-1-303.1	Y		>Ringelmann No.2 for no more than 3 minutes in any hour		N		**X**	
Opacity	SIP Regulation 6-303.1	Y		>Ringelmann No.2 for no more than 3 minutes in any hour		N		**X**	
FP	BAAQMD 6-1-310	Y		0.15 gr/dscf Particulate Weight Limitation		N		**X**	
FP	SIP Regulation 6-310	Y		0.15 gr/dscf		N		**X**	
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		**X**	
SO_2	BAAQMD 9-1-304	Y		0.5% sulfur in fuel by weight	BAAQMD Condition #23688, part 39	P/E	Fuel certification	**X**	
Hours of operation	BAAQMD Regulation 9-8-330.1	N		Emergency use for an unlimited number of hours	BAAQMD Regulation 9-8-530	P	Records	**X**	
Hours of operation	40 CFR Part 63, Subpart ZZZZ, 63.6640(f)(1)(ii)	Y		Maintenance checks and readiness testing less than 100 hr./yr.	40 CFR Part 63, Subpart ZZZZ, 63.6655€	P	Records	**X**	
Hours of operation	BAAQMD Condition #23688, part 39	N		Reliability related activities less 50 hr./yr.	BAAQMD Condition #23688, parts 41 & 42	C P/E	Records	**X**	

Los Esteros Critical Energy Facility
Title V CEMS Semi-Annual Monitoring Report
June 1, 2022 – November 30, 2022

Table VII – C
Applicable Limits and Compliance Monitoring Requirements
S-11 SIX CELL COOLING TOWER

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type	Compliance	
								Yes	No
Opacity	BAAQMD 6-1-301	Y		>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	Y		0.15 gr/dscf		N		**X**	
FP	SIP 6-310	Y		0.15 gr/dscf		N		**X**	
FP	BAAQMD 6-1-311	N		40 lb./hr.		N		**X**	
FP	SIP 6-311	Y		40 lb./hr.		N		**X**	
Drift Rate	BAAQMD Condition #23688, part 46	N		0.0005% (Applies to S11 only)	BAAQMD Condition #23688, part 47	P Initial (5th and 15th Year if required by CPM)	Source Test	**X**	
TDS	BAAQMD condition #23688, part 46	N		<6,000 ppmw (Applies to S11 only)	BAAQMD condition #23688, part 46	P/D	TDS Test	**X**	
Flow	BAAQMD condition #23688, part 47	Y		90,000 gpm (Applies to S11 only)		N		**X**	