AMERESCO
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January 17, 2022

TV Tracking #: 406

1. ☐ RECEIVED IN ENFORCEMENT: 01/17/2022

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

RE: Semiannual Monitoring and Deviation Report: 6/15/21 – 12/31/21
Ameresco Half Moon Bay LLC, Plant #B7040
Title V Permit - Condition I.F (Regulation 2-6-502)

Dear Director,

Ameresco Half Moon Bay LLC has prepared this Semiannual Monitoring and Deviation Report as required by Condition I.F (Regulation 2-6-502) of Title V Permit #B7040 issued on December 14, 2020. As agreed upon between Ameresco and BAAQMD on June 17, 2021, this report covers June 15, 2021 – December 31, 2021, and all subsequent reports will cover January 1 to June 30 and July 1 to December 31.

This report is certified by the facility Responsible Official (RO). If you have any questions on this submittal or require additional information, please contact Rebecca Sherwood at rsherwood@ameresco.com or (508) 598-3049.

Sincerely,
Ameresco Half Moon Bay LLC;
By: its Sole Member, Ameresco LFG Holdings II LLC;
By: its Sole Member, Ameresco, Inc.

Nathan W. Hall,
Vice President – Asset Operations

Attachments:
1. Certification Statement
2. Semiannual Compliance Report
3. Summary of Deviations

CC: H. Stewart, R. Peary, R. Sherwood, P. Ziesing, T. Tibbs, F. Gonzalez, Ameresco
D. Zhu, K. Cordes, compliance@baaqmd.gov, BAAQMD

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ATTACHMENT 1:

CERTIFICATION STATEMENT

AMERESCO HALF MOON BAY LLC
SEMIANNUAL MONITORING AND DEVIATION REPORT

(6/15/21 – 12/31/21)

Permit Services Division
Bay Area Air Quality Management District
375 Beale Street, Suite 600, San Francisco, CA 94105 • 415-749-4990

Major Facility Review
Certification Statement

FACILITY NAME Ameresco Half Moon Bay LLC **FACILITY #** 17040

STATEMENT OF COMPLIANCE:

I certify the following:

Read each statement carefully and initial each box for confirmation.

- [x] ***Based on information and belief formed after reasonable inquiry, the source(s) identified in the Applicable Requirements and Compliance Summary form that is(are) in compliance will continue to comply with the applicable requirement(s);***

- [x] ***Based on information and belief formed after reasonable inquiry, the source(s) identified in the Applicable Requirements and Compliance Summary form will comply with future-effective applicable requirement(s), on a timely basis;***

- [x] ***Based on information and belief formed after reasonable inquiry, information on application forms, all accompanying reports, and other required certifications is true, accurate, and complete;***

- [x] ***All fees required by Regulation 3, including Schedule P have been paid.***

STATEMENT OF NON-COMPLIANCE

Read statement carefully. Initial box for confirmation if statement is true.

I certify the following:

- [ ] ***Based on information and belief formed after reasonable inquiry, the source(s) identified in the Schedule of Compliance application form that is(are) not in compliance with the applicable requirement(s) will comply in accordance with the attached compliance plan schedule.***

Signature of Responsible Official

1/18/22
Date

Nathan W. Hall
Name of Responsible Official

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ATTACHMENT 2:

SEMIANNUAL COMPLIANCE REPORT

AMERESCO HALF MOON BAY LLC
SEMIANNUAL MONITORING AND DEVIATION REPORT

(6/15/21 – 12/31/21)

Ameresco Half Moon Bay LLC
Plant Number: 17040

12310 San Mateo Road
Half Moon Bay, CA 94019

Reporting Period: June 15, 2021 to December 31, 2021
Source Name: Internal Combustion Lean Burn Engines and TSA System with Control Flare
Sources #: S-1; S-2; S-3; S-4; S-5; S-6; S-7; S-8, A-8

Semiannual Monitoring and Deviation Report

Applicable Requirement	Description	Compliance Determination Method	Compliance (Y/N)	Continuous or Intermittent	Comments
BAAQMD Regulation 1	**General Provisions and Definitions**				
1-523	**Parametric Monitoring and Recordkeeping Procedures**				
523.1	Report periods of inoperation > 24 hours by next workday	Reporting	Y	C	
523.2	Limit on duration of inoperation	Monitoring	Y	C	
523.3	Report monitored violations of any applicable limits within 96 hours	Reporting	Y	C	
523.4	Record inoperation, tests, calibrations, adjustments, & maintenance	Recordkeeping	Y	C	
523.5	Maintain and calibrate monitors	Monitoring	Y	C	
BAAQMD Regulation 2 Rule 1	**General Requirements**				
2-1-405	Posting of Permit to Operate	Monitoring	Y	C	
2-1-429	Federal Emissions Statement	Reporting	Y	C	
BAAQMD Regulation 3	**Fees**				
3-319	Major Stationary Source Fees (Schedule M)	Monitoring	Y	C	
3-320	Toxic Inventory Fee (Schedule N)	Monitoring	Y	C	
3-327	Permit to Operate, Renewal Fees (Schedule B)	Monitoring	Y	C	

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Applicable Requirement	Description	Compliance Determination Method	Compliance (Y/N)	Continuous or Intermittent	Comments
3-333	Major Facility Review (MFR) Fees (Schedule P)	Monitoring	Y	C	
3-334	Greenhouse Gas Fees (Schedule T)	Monitoring	Y	C	
BAAQMD Regulation 6	**Particulate Matter and Visible Emissions**				
6-1-301	Ringelmann No.1 Limitation	Monitoring	Y	C	
6-1-302	Opacity Limitation	Monitoring	Y	C	
6-1-305	Visible Particles	Monitoring	Y	C	
6-1-310	Particle Weight Limitation (343 mg/dscm or 0.15 grains/dscf)	Monitoring	Y	C	
6-1-401	Appearance of Emissions	Monitoring	Y	C	
6-1-501	Sampling Facilities and Instruments Required	Monitoring	Y	C	
6-1-502	Data, Records, and Reporting	Monitoring/Records	Y	C	
6-1-504	Demonstration of Total Suspended Particles (TSP) Compliance	Testing	Y	C	
BAAQMD Regulation 8	**LFG Collection and Control System**				
8-34-301	**Landfill Gas Collection and Emission Control System**				
301.2	Control Systems Leak Limit < 1000 as CH4; repair leaks within 7 days	Monitoring	Y	C	
301.3	Flare NMOC Limit < 30 ppmv as CH4 at 3% O2 or 98% destruction	Monitoring	Y	C	

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Semiannual Monitoring and Deviation Report

Applicable Requirement	Description	Compliance Determination Method	Compliance (Y/N)	Continuous or Intermittent	Comments
301.4	Engines NMOC Limit < 120 ppmvd as CH4 at 3% O2 or 98% destruction or 97% destruction of organic compounds and CH4	Monitoring	N	I	See: "Summary of Deviations" (Attachment 3).
8-34-412	Compliance Demonstration Tests	Monitoring	Y	C	
8-34-413	Performance Test Report	Reporting	Y	C	
8-34-501	**Operating Records**				
501.2	Emission Control System Downtime	Recordkeeping	Y	C	
501.3	Continuous Temperature	Recordkeeping	Y	C	
501.4	Testing Records	Recordkeeping	Y	C	
501.6	Leak Discovery and Repair Records	Recordkeeping	Y	C	
501.10	Continuous Gas Flow Records	Recordkeeping	Y	C	
501.11	Records of Key Emission Control System Operating Parameters	Recordkeeping	Y	C	
501.12	Maintain records 5 years	Recordkeeping	Y	C	
8-34-503	Landfill Gas Collection and Emission Control System Leak Testing	Monitoring	Y	C	
8-34-504	Portable Hydrocarbon Detector	Monitoring	Y	C	
8-34-507	Continuously operate temperature recording device (flare)	Monitoring	Y	C	
8-34-508	Gas flow meter records flow rate at least every 15 minutes	Monitoring/Records	Y	C	

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Semiannual Monitoring and Deviation Report

Applicable Requirement	Description	Compliance Determination Method	Compliance (Y/N)	Continuous or Intermittent	Comments
8-34-509	Key emission control system operating parameters	Monitoring/Records	Y	C	
BAAQMD Regulation 9, Rule 1	**Inorganic Gaseous Pollutants – Sulfur Dioxide**				
9-1-301	Ground Level SO_2 Concentration Limit	N/A	N/A	N/A	
9-1-302	General Emission Limitations	Monitoring	Y	C	
BAAQMD Regulation 9 Rule 2	**Inorganic Gaseous Pollutants – Hydrogen Sulfide**				
9-2-301	Ground Level H_2S Concentration Limit	N/A	N/A	N/A	
BAAQMD Regulation 9 Rule 8	**Inorganic Gaseous Pollutants – Nitrogen Oxides and Carbon Monoxide from Stationary Internal Combustion Engines**				
9-8-302	**Emission Limits – Waste Derived Fuel Gas**				
302.1	Lean-Burn Engines: NOx Emission Limit	Monitoring	Y	C	
302.3	CO Emission Limit	Monitoring	Y	C	
9-8-501	Initial Demonstration of Compliance	Monitoring	Y	C	
9-8-502.3	Compliance Demonstration Test Records	Recordkeeping	Y	C	
9-8-503	Quarterly Demonstration of Compliance (ECOM)	Monitoring	Y	C	

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Semiannual Monitoring and Deviation Report

Permits to Operate

Applicable Requirement	Description	Compliance Determination Method	Compliance (Y/N)	Continuous or Intermittent	Comments
BAAQMD Permits to Operate	**Cond #25465**				
Part 1	Fuel Restrictions and Bypass Event Limitations	Monitoring/Records	Y	C	
Part 2	Heat Input Limits and Monitoring Requirements	Monitoring/Records	Y	C	
Part 3	CO Emissions < 1.8 g/bhp-hr	Monitoring/Records	Y	C	
Part 4	S1 NOx Emissions < 0.15 g/bhp-hr	Monitoring/Records	Y	C	
Part 5	S2-6 NOx Emissions < 0.6 g/bhp-hr	Monitoring/Records	Y	C	
Part 6	Start-up and Shutdown < 1 hr	Monitoring/Records	Y	C	
Part 7	S1-S6 POC emissions < 0.2 g/ bhp-hr	Monitoring/Records	N	I	See: "Summary of Deviations" (Attachment 3).
Part 8	LFG Fuel < 150 ppmv total sulfur, as H_2S	Monitoring/Records	Y	C	
Part 9	Abate S1-S6 with CO oxidation catalyst	Monitoring/Records	Y	C	
Part 10	Abate S1 with NOx SCR	Monitoring/Records	Y	C	
Part 11	Annual / Quadrennial Engine Source Testing Requirements	Testing	Y	C	
Part 12	Monitoring Records	Recordkeeping	Y	C	
BAAQMD Permits to Operate	**Cond #26864**				
Part 1	Facility-Wide CO Emissions Limit	Monitoring/Records	Y	C	

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Semiannual Monitoring and Deviation Report

Applicable Requirement	Description	Compliance Determination Method	Compliance (Y/N)	Continuous or Intermittent	Comments
Part 2	Facility-Wide Record Keeping Requirements	Monitoring/Records			
BAAQMD Permits to Operate	**Cond #26865**				
Part 1	Landfill Gas Throughput to S-7	Monitoring/Records	Y	C	
Part 2	Landfill Gas Combustion in A-8	Monitoring/Records	Y	C	
Part 3	Landfill Gas Throughput to A-8, Heat Input Limit for Flare	Monitoring/Records	Y	C	
Part 4	NMOC Emission Limit for Flare	Testing	Y	C	
Part 5	Combustion Zone Temperature Limit for Flare	Monitoring/Records	Y	C	
Part 6	NOx Emission Limit for Flare	Testing	Y	C	
Part 7	CO Emission Limit for Flare	Testing	Y	C	
Part 8	SO2 Emission Limit for Flare	Testing	Y	C	
Part 9	Benzene, Formaldehyde, Acetaldehyde, and PAH Emissions from Flare	Testing	Y	C	
Part 10	Compliance Demonstration Test for Flare	Testing	Y	C	
Part 11	Landfill Gas Analysis Procedures	Testing	Y	C	
BAAQMD Permits to Operate	**Cond #26782**				
Part 1	LFG Condensate Throughput Limit 5000 gal/12-month	Monitoring/Records	Y	C	
Part 2	LFG Condensate Tank Recordkeeping Requirements	Monitoring/Records	Y	C	

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Semiannual Monitoring and Deviation Report

Federal Requirements

Applicable Requirement	Description	Compliance Determination Method	Compliance (Y/N)	Continuous or Intermittent	Comments
40 CFR Part 63, Subpart A	**National Emission Standards for Hazardous Air Pollutants: General Provisions**				
63.4	Prohibited activities and circumvention	Monitoring	Y	C	
63.5	**Preconstruction review and notification requirements**				
63.5(b)	Requirements for existing, newly constructed, and reconstructed sources	Monitoring, Reporting	Y	C	
63.6	**Compliance with standards and maintenance requirements**				
63.6(e)	Operation and maintenance requirements and SSM Plan	Monitoring	Y	C	
63.6(f)	Compliance with non-opacity emission standards	Monitoring	Y	C	
63.10	**Record Keeping and reporting requirements**				
63.10(b)	General record keeping requirements	Recordkeeping	Y	C	
63.10(b)(2)	For affected sources, maintain relevant records of:	Recordkeeping	Y	C	
63.10(b)(2)(i-v)	Records for startup, shutdown, malfunction, and maintenance	Recordkeeping	Y	C	
63.10(d)	General reporting requirements	Reporting	Y	C	
63.10(d)(5)	Startup, Shutdown, and Malfunction (SSM) Reports	Reporting	Y	C	

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Semiannual Monitoring and Deviation Report

Applicable Requirement	Description	Compliance Determination Method	Compliance (Y/N)	Continuous or Intermittent	Comments
40 CFR Part 63, Subpart ZZZZ	**National Emission Standards for Hazardous Air Pollutants: Stationary Internal Combustion Engines**				
63.6585	An area source of HAP emissions is a source that is not a major source	Monitoring/Records	Y	C	
63.6590(a)	Affected Source	Monitoring/Records	Y	C	
63.6590(a)(ii)	Existing Stationary RICE manufactured before 7/1/2007	Monitoring/Records	Y	C	
63.6595	Affected Source – major source of HAPs	Monitoring/Records	Y	C	
63.6603	Maintenance activities	Monitoring	Y	C	
63.6605	Compliance Limitations	Monitoring	Y	C	
63.6625	Monitoring, Operation and Maintenance Requirements	Monitoring	Y	C	
63.6640	Compliance Limitations	Monitoring	Y	C	
63.6655	Compliance Records	Recordkeeping	Y	C	
63.6650	Semiannual Monitoring Reports	Reporting	Y	C	
63.6660	Maintain records for a minimum period of 5 years	Recordkeeping	Y	C	

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ATTACHMENT 3:

SUMMARY OF DEVIATIONS

AMERESCO HALF MOON BAY LLC
SEMIANNUAL MONITORING AND DEVIATION REPORT

(6/15/21 – 12/31/21)

Ameresco Half Moon Bay LLC
Plant Number: 17040

12310 San Mateo Road
Half Moon Bay, CA 94019

Reporting Period: December 14, 2020 to June 14, 2021
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Sources #: S-1; S-2; S-3; S-4; S-5; S-6; S-7; S-8, A-8

Semiannual Monitoring and Deviation Report

Summary of Deviations

Applicable Requirement	Permit Unit(s)	Description of Deviation	Probable Cause of Deviation	Corrective / Preventative Actions
Condition 25465 Part 7 (8-34-301.4)	S-1, S-2, S-3, S-4, S-6 (Engines 1, 2, 3, 4, 6)	On October 20, 2021, Ameresco received a source test report which indicated that engines 1, 2, 3, 4, and 6 did not meet the permitted emission limits for non-methane organic compounds (NMOC) and precursor organic compounds (POC). Emissions testing was conducted on August 24, 2021, for S-1 and S-2; August 25, 2021, for S-3 and S-4; and August 27, 2021, for S-6.	It is Ameresco's position that the apparent excess emissions were the result of inaccurate test methodology for landfill gas fueled engines and not an actual excess emissions event. Ameresco proposed to conduct NMOC/POC testing using EPA Method 18, however BAAQMD requested that Methods 25A and 18 be used, which are less accurate for landfill gas engines. In addition, CO emissions during the source test were well controlled by efficient engine operation and oxidation catalysts, which also indicates effective NMOC control. In fact, Title V Permit Condition 25465.7 allows CO to be used to demonstrate on-going compliance with NMOC and POC emission limits.	On November 2, 2021, BAAQMD approved a protocol submitted by Ameresco earlier that day to retest the engines using EPA ALT-078. Testing was completed on November 8 and 9, 2021, which showed NMOC emissions for all engines well below the permit limits.