



Building Lifetime Relationships with Clients and Employees

Combined Title V Semi-Annual and Partial 8-34 Annual Report

October 1, 2018 through March 31, 2019
Ox Mountain Landfill
Facility Number A2266

Prepared for:
Browning Ferris Industries of CA, Inc

Ox Mountain Landfill
12310 San Mateo Road
Half Moon Bay, CA 94019

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MANAGEMENT DISTRICT

April 30, 2019

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

Director of the Air Division
USEPA, Region IX
75 Hawthorne Street
San Francisco, CA 94105
Attn: Air-3


SUBJECT: Combined Title V Semi-Annual and Partial 8-34 Annual Report
40 CFR 63 Subpart AAAAA Semi-Annual Report Browning-
Ferris Industries of CA, Inc.
12310 San Mateo Road
Half Moon Bay, California 94019
Facility Number A2266

Dear Sir or Madam:

Browning-Ferris Industries of CA, Inc., owner and operator of the Ox Mountain Landfill, is pleased to submit the attached Semi-Annual Report (SAR) and Partial 8-34 Annual Report for the period of October 1, 2018 through March 31, 2019 to the Bay Area Air Quality Management District (BAAQMD) and the United States Environmental Protection Agency (USEPA), Region IX. As required by 40 Code of Federal Regulations (CFR) Part 63 Subpart AAAAA, the Semi-Annual Startup, Shutdown and Malfunction (SSM) Report is also enclosed. The Combined Title V Semi-Annual and Partial 8-34 Annual Report satisfies the requirements of the Title V Permit listed in Title V Permit Condition Number 10164 Part 33 and Standard Condition I.F.

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

Sincerely,
Browning-Ferris Industries of CA, Inc.



Michael Mahoney
Responsible Official

for Michael Mahoney

4/26/19

Date Signed

Combined Title V Semi-Annual and Partial 8-34 Annual Report

Ox Mountain Landfill Facility Number A2266

October 1, 2018 through March 31, 2019

April 2019

Prepared for:

Browning Ferris Industries of CA, Inc.
12310 San Mateo Road
Half Moon Bay, CA 94019



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TABLE OF CONTENTS

LIST OF TABLES, FIGURES AND DRAWINGS.....	V
1 INTRODUCTION.....	6
1.1 PURPOSE.....	6
1.2 RECORD KEEPING AND REPORTING	6
1.3 REPORT PREPARATION.....	6
1.4 MAJOR FACILITY REVIEW PERMIT RENEWAL.....	6
2 COMBINED MONITORING REPORT	7
2.1 COLLECTION SYSTEM OPERATION (BAAQMD 8-34-501.1 & §60.757(F)(4))	8
2.1.1 COLLECTION SYSTEM DOWNTIME.....	8
2.1.2 WELL START-UP & DISCONNECTION LOG	8
2.2 EMISSION CONTROL DEVICE DOWNTIME (BAAQMD 8-34-501.2 & §60.757(F)(3))	9
2.2.1 LFG BYPASS OPERATIONS (§60.757(F)(2)).....	9
2.3 TEMPERATURE MONITORING RESULTS (BAAQMD 8-34-501.3, 8-34-507, & §60.757(F)(1))	9
2.4 MONTHLY COVER INTEGRITY MONITORING (BAAQMD 8-34-501.4 & 8-34-510).....	9
2.5 LESS THAN CONTINUOUS OPERATION (BAAQMD 8-34-501.5)	10
2.6 COMPLIANCE WITH TITLE V PERMIT CONDITION 10164 PART 18(D)(1).....	10
2.7 SURFACE EMISSIONS MONITORING (BAAQMD 8-34-501.6, 8-34-506, §60.757(F)(5) & CALIFORNIA CODE OF REGULATIONS (CCR) §95469(A))	10
2.8 COMPONENT LEAK TESTING (BAAQMD 8-34-501.6 & 8-34-503, CCR §95465(B)(1)(B))	10
2.9 WASTE ACCEPTANCE RECORDS (BAAQMD 8-34-501.7).....	11
2.10 NON-DEGRADABLE WASTE ACCEPTANCE RECORDS (BAAQMD 8-34-501.8).....	11
2.11 WELLHEAD MONITORING DATA (BAAQMD 8-34-501.4 & 8-34-505).....	11
2.11.1 WELLHEAD DEVIATIONS (BAAQMD 8-34-501.9 & §60.757(F)(1))	12
2.11.2 HIGHER OPERATING VALUE (HOV) WELLS.....	12
2.11.2.1 Oxygen HOV Wells.....	12
2.11.2.2 Oxygen and Pressure HOV Wells	12
2.12 GAS FLOW AND TEMPERATURE MONITORING RESULTS (BAAQMD 8-34-501.10, 8-34- 508, & §60.757(F)(1))	13
2.13 COMPLIANCE WITH §60.757(F)(6)	13
2.14 COMPLIANCE WITH TITLE V PERMIT CONDITION NUMBER 10164, PART 5	14
2.15 COMPLIANCE WITH TITLE V PERMIT CONDITION NUMBER 10164, PART 6	14

2.16	COMPLIANCE WITH TITLE V PERMIT CONDITION NUMBER 10164, PART 7	14
2.17	COMPLIANCE WITH TITLE V PERMIT CONDITION NUMBER 10164, PART 8	14
2.18	COMPLIANCE WITH TITLE V PERMIT CONDITION NUMBER 10164, PART 9	14
2.19	COMPLIANCE WITH TITLE V PERMIT CONDITION NUMBER 10164, PART 10	15
2.20	COMPLIANCE WITH TITLE V PERMIT CONDITION NUMBER 10164, PART 13	15
2.21	COMPLIANCE WITH TITLE V PERMIT CONDITION NUMBER 16315 FOR S-12 STOCKPILE OR GREEN WASTE	15
2.22	COMPLIANCE WITH TITLE V PERMIT CONDITION NUMBER 26216 AND 25107 FOR S-5 NON-RETAIL GASOLINE DISPENSING FACILITY G#8524.....	16
2.23	COMPLIANCE WITH DRAFT TITLE V PERMIT CONDITION NUMBER 10164, PART 20	16
2.24	COMPLIANCE WITH DRAFT TITLE V PERMIT CONDITION NUMBER 10164, PART 21	16
2.25	COMPLIANCE WITH DRAFT TITLE V PERMIT CONDITION NUMBER 10164, PART 22	17
3	PERFORMANCE TEST REPORT	18
3.1	FLARE (A-7, A-8, AND A-9) COMPLIANCE DEMONSTRATION TEST RESULTS BAAQMD 8-34-412).....	18
3.2	COMPLIANCE WITH §60.757(G)(1)	19
3.3	COMPLIANCE WITH §60.757(G)(2)	19
3.4	COMPLIANCE WITH §60.757(G)(3)	19
3.5	COMPLIANCE WITH §60.757(G)(4)	20
3.6	COMPLIANCE WITH §60.757(G)(5)	20
3.7	COMPLIANCE WITH §60.757(G)(6)	20
4	START-UP, SHUTDOWN, MALFUNCTION (SSM) PLAN.....	22
4.1	SSM LOG FOR THE GCCS AT OX MOUNTAIN	22

APPENDICES

APPENDIX A SITE MAP

APPENDIX B BAAQMD CORRESPONDENCE

APPENDIX C WELL SSM LOG

APPENDIX D SSM LOG FLARE AND IC ENGINES

APPENDIX E GCCS DOWNTIME

**APPENDIX F FLARE FLOW AND TEMPERATURE DEVIATION/INOPERATIVE
MONITORING/MISSING DATA REPORTS**

APPENDIX G COVER INTEGRITY MONITORING LOGS

APPENDIX H SURFACE EMISSIONS MONITORING REPORTS

APPENDIX I COMPONENT LEAK CHECK REPORTS

APPENDIX J WELLFIELD MONITORING LOGS

APPENDIX K WELLFIELD DEVIATION LOG

APPENDIX L MONTHLY LANDFILL GAS FLOW RATES

APPENDIX M GAS MIGRATION MONITORING REPORTS

APPENDIX N S-12 STOCKPILE OF GREEN WASTE

**APPENDIX O S-5 NON-RETAIL GASOLINE DISPENSING FACILITY MONTHLY
GASOLINE THROUGHPUT**

APPENDIX P MONTHLY TOTAL REDUCED SULFUR (TRS) CONCENTRATIONS

APPENDIX Q STATIC PRESSURE PERFORMANCE TEST (LEAK TEST)

List of Tables, Figures and Drawings

Tables

Table 2-1	Combined Report Requirements
Table 2-2	On-site Vehicle Traffic Volume
Table 2-3	Vehicle Traffic
Table 3-1	Performance Test Requirements

1 INTRODUCTION

1.1 Purpose

This document is a Combined Semi-Annual Title V and Partial 8-34 Annual Report (Semi-annual report) for Browning-Ferries Industries of CA, Inc. (BFI) pursuant to Title V Permit Standard Condition 1.F and Condition Number 10164 Part 33. This report satisfies the requirements of the Bay Area Air Quality Management District's (BAAQMD) Regulation 8, Rule 34, Section 411 and Title 40 Code of Federal Regulations (CFR) Part 60 Subpart WWW, New Source Performance Standards (NSPS) for municipal solid waste (MSW) landfills. This Combined Report meets the requirements of Title V Standard Condition 1.F, BAAQMD Rule 8-34-411 and 40 CFR §60.757(f) and covers compliance activities conducted from October 1, 2018 through March 31, 2019. This Combined Report also includes the Semi-Annual Report of Start-up, Shutdown, and Malfunction (SSM) Plan activities pursuant to National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 63, Subpart AAAA for Landfills.

Section 2 of this Combined Report contains the elements required to satisfy both BAAQMD 8-34-411 and 40 CFR §60.757(f). Section 3 of this Combined Report contains a summary of the Performance Test Report requirements, and verifies compliance with BAAQMD Rule 8-34-413, 40 CFR §60.757(g), and Title V Permit Condition Number 10164 Part 30. Section 4 of this Combined Report includes the Semi-Annual Report of the SSM Plan activities pursuant to the NESHAP, 40 CFR Part 63, Subpart AAAA for Landfills.

1.2 Record Keeping and Reporting

Records are maintained and available for inspection at the Ox Mountain Landfill in accordance with BAAQMD Rule 8-34-501.12 and 40 CFR §60.758. Records are maintained at this location for a minimum of five years in accordance with federal regulations.

1.3 Report Preparation

This Combined Report has been prepared by Cornerstone Environmental Group, LLC, a Tetra Tech Company (Cornerstone) as authorized by BFI.

1.4 Major Facility Review Permit Renewal

The current Major Facility Review Permit for BFI, Title V Permit Number A2266, was issued on March 14, 2014, and expired on March 13, 2019. An application for the renewal of the Major Facility Review Permit was submitted to the BAAQMD on September 12, 2018. However, issuance of a new permit has not occurred at the time of this submittal. Therefore, the permit that expired March 13, 2019 is still in effect due to a permit shield, which will remain in effect until a new permit is issued.

2 COMBINED MONITORING REPORT

In accordance with Title V Permit Standard Condition 1.F, BAAQMD Rule 8-34-411 and §60.757(f) in the NSPS, this report is a Combined Semi-Annual Title V Report and Partial 8-34 Annual Report that is required to be submitted by BFI. The report contains monitoring data for the operation of the landfill gas (LFG) collection and control system (GCCS). The operational records have been reviewed and summarized. The timeframe covered by the report is October 1, 2018 through March 31, 2019. The following table lists the rules and regulations that are required to be included in this Combined Report.

TABLE 2-1 - COMBINED REPORT REQUIREMENTS

Rule	Requirement	Location in Report
8-34-501.1 §60.757(f)(4)	All collection system downtime, including individual well shutdown times and the reason for the shutdown.	Section 2.1, Appendices C, D & E
8-34-501.2 §60.757(f)(3)	All emission control system downtime and the reason for the shutdown.	Section 2.2, Appendix D
8-34-501.3, 8-34-507, §60.757(f)(1)	Continuous temperature for all operating flares and any enclosed combustor subject to Section 8-34-507.	Section 2.3, Appendix F
8-34-501.4, 8-34-510	Monitoring and/or testing performed to satisfy the requirements of the rules.	Section 2.4, Appendix G
8-34-501.6, 8-34-503, 8-34-506, §60.757(f)(5)	For operations subject to Section 8-34-503 and 8-34-506, records of all monitoring dates, leaks in excess of the limits in Section 8-34-301.2 or 8-34-303 that are discovered by the operator, including the location of the leak, leak concentration in parts per million by volume (ppmv), date of discovery, the action taken to repair the leak, date of the repair, date of any required re-monitoring, and the re-monitored concentration in ppmv.	Section 2.7 & 2.8, Appendices H & I
8-34-501.7	Annual waste acceptance rate and current amount of waste in-place.	Section 2.9
8-34-501.8	Records of the nature, location, amount, and date of deposition of non-degradable wastes, for any landfill areas excluded from the collection system requirement as documented in the GCCS Design Plan.	Section 2.10
8-34-501.4, 8-34-501.9, 8-34-505, §60.757(f)(1)	For operations subject to Section 8-34-505, records of all monitoring dates and any excesses of the limits stated in Section 8-34-305 that are discovered by the operator, including well identification number, the measured excess, the action taken to repair the excess, and the date of repair. Allowed higher operating value (HOV) wells excluded from the limits are listed here as well.	Section 2.11, 2.11.1, 2.11.2, Appendices J & K
8-34-501.10, 8-34-508, §60.757(f)(1)	Continuous gas flow rate and temperature records for any site subject to Section 8-34-508.	Section 2.12, Appendices F and L

Rule	Requirement	Location in Report
8-34-501.12	The records required above shall be made available and retained for a period of five years.	Section 1.2
§60.757(f)(1)	Value and length of time for exceedance of parameters monitored per §60.756(a), (b), or (d).	Section 2.3
§60.757(f)(2)	Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under §60.756.	Section 2.2.1
§60.757(f)(3)	Description and duration of all periods when control devices were not operating for more than 1 hour §60.756.	Section 2.2, Appendix D
§60.757(f)(4)	All periods when collection system was not operating for more than 5 days.	Section 2.2
§60.757(f)(5)	Location of each surface emission excess and all re-monitoring dates and concentration.	Section 2.7, Appendix H
§60.757(f)(6)	The date of installation and the location of each well or collection system expansion added pursuant to paragraphs (a)(3), (b), (c)(4) of §60.755.	Section 2.13, Appendices B & C

2.1 Collection System Operation (BAAQMD 8-34-501.1 & §60.757(f)(4))

Appendix A contains a map of Ox Mountain’s GCCS. Section 2.1.1 includes the GCCS downtime for the reporting period. The information contained in Appendix C includes the individual well start-up and shutdown times and the reason for the SSM events.

2.1.1 Collection System Downtime

During the period covered in this report, the GCCS was not shut down for more than five days on any one occasion. There were 31.75 hours of GCCS downtime for the reporting period of October 1, 2018 through March 31, 2019. The total downtime for 2018 was 36.59 hours, out of an allowable 240 hours.

Appendix D contains the A-7, A-8, and A-9 Flares and the Ameresco Internal Combustion (IC) engines Downtime Reports which list dates, times, and lengths of shutdowns for the reporting period. Appendix E contains the GCCS Downtime.

2.1.2 Well Start-Up & Disconnection Log

There were 15 wellfield SSM events that occurred during the reporting period. A total of four vertical LFG extraction wells and one horizontal LFG collector were decommissioned, two replacement LFG extraction wells, and seven new vertical LFG extraction wells were started up pursuant to BAAQMD Regulation 8-34-117. See Appendix C, Wellfield SSM Log for details.

2.2 Emission Control Device Downtime (BAAQMD 8-34-501.2 & §60.757(f)(3))

The emission control system consists of three flares (A-7, A-8, and A-9), which all began operation in 2004 and the six Internal Combustion (IC) Engines operated by Ameresco. The six IC Engines are under a separate permit and reporting is done by a third-party. The control system was not bypassed at any time during the reporting period. Raw LFG was not emitted during the reporting period. The SSM Logs for the A-7, A-8, and A-9 Flares and the IC Engines are located in Appendix D.

2.2.1 LFG Bypass Operations (§60.757(f)(2))

Title 40 CFR §60.757(f)(2) is not applicable at Ox Mountain because a bypass line has not been installed. LFG cannot be diverted from the control equipment.

2.3 Temperature Monitoring Results (BAAQMD 8-34-501.3, 8-34-507, & §60.757(f)(1))

The combustion zone temperatures of the flares are monitored with Thermo-Electric Thermocouples. The temperature is displayed with a Yokogawa digital recorder, which is downloaded and archived. There were no temperature deviations during the reporting period. Appendix F contains the Flare Flow and Temperature Deviation/ Inoperative Monitor/ Missing Data Reports for October 1, 2018 through March 31, 2019.

2.4 Monthly Cover Integrity Monitoring (BAAQMD 8-34-501.4 & 8-34-510)

The cover integrity monitoring was performed on the following dates:

- October 10, 2018;
- November 30, 2018;
- December 31, 2018;
- January 31, 2019;
- February 28, 2019; and
- March 5, 2019.

The Monthly Cover Integrity Monitoring Logs are included in Appendix G.

2.5 Less Than Continuous Operation (BAAQMD 8-34-501.5)

Ox Mountain does not operate under BAAQMD Regulation 8-34-404 Less Than Continuous Operation (LTCO) and therefore, is not required to submit monthly LFG flow rates for LTCO wells.

2.6 Compliance with Title V Permit Condition 10164 Part 18(d)(i)

On October 22, 2015, Ox Mountain submitted a request to the BAAQMD for approval to operate the following wells under 8-34-404: LTS-1, LTS-2, LTS-3, LTS-4, LTS-5, LTS-6, LTS-7, LTS-8, LTS-9, LTS-10, LTS-11, and LTS-12. The BAAQMD responded to this request on May 6, 2016 by providing language to the current Title V Permit that the aforementioned wells may operate under LTCO. Cornerstone, on behalf of Republic, responded to the BAAQMD on May 24, 2016 that the provided language was acceptable. Republic received the updated Title V Permit from the BAAQMD on October 14, 2016 containing Permit Condition 10164 Part 18(d)(i) which allows the aforementioned wells to operate less than continuously.

On June 15, 2017, Ox Mountain submitted a request to the BAAQMD for approval to operate the following wells under 8-34-404: LTS-13, LTS-14, LTS-15, LTS-16, LTS-17, LTS-18, LTS-19, and LTS-20. The BAAQMD responded to this request on March 8, 2018 by providing updated language to the current Title V Permit. Pursuant to the updated Permit Condition 10164 Part 18, BAAQMD Regulation 8-34-305.3 and 8-34-305.4 shall not apply to the aforementioned wells, provided that the oxygen concentration does not exceed 15-percent by volume. Additionally, Permit Condition 10164 Part 18(d)(i) has been updated to reflect that the aforementioned wells may operate less than continuously.

2.7 Surface Emissions Monitoring (BAAQMD 8-34-501.6, 8-34-506, §60.757(f)(5) & California Code of Regulations (CCR) §95469(a))

The Third Quarter 2018 and Fourth Quarter 2018 Instantaneous and Integrated Surface Emission Monitoring (SEM) events were completed by a third-party. Refer to the Third Quarter 2018 and Fourth Quarter 2018 SEM Reports, located in Appendix H, for detailed results.

2.8 Component Leak Testing (BAAQMD 8-34-501.6 & 8-34-503, CCR §95465(b)(1)(B))

Quarterly component leak testing, pursuant to BAAQMD Regulation 8-34-301.2 and California Air Resources Board (CARB) §95465(b)(1)(B), occurred during the reporting period on the following dates:

- Fourth Quarter 2018 – October 1 and December 10, 2018; and

- First Quarter 2019 – January 4, 2019.

Exceedances of 500 or 1000 ppmv detected were repaired as required by CARB Title 17 of California Code of Regulations Subchapter 10, Article 4, Subarticle 6, Section 95464(b)(1)(B) and BAAQMD Regulation 8-34-301.2.

The A-8 Flare was not monitored for component leak testing during the Fourth Quarter 2018 and First Quarter 2019 as it was not in operation.

Refer to the Quarterly LFG Component Leak Monitoring Logs, located in Appendix I, for detailed results.

2.9 Waste Acceptance Records (BAAQMD 8-34-501.7)

The amount of waste accepted during the reporting period of October 1, 2018 through March 31, 2019 was approximately 281,664 tons. The current Waste-In-Place (WIP) as of March 31, 2019 is approximately 23,895,911.32 tons.

Previous reports indicated a higher WIP value that was inaccurate. This report contains the corrected WIP value that will be utilized going forward and in future reporting.

2.10 Non-Degradable Waste Acceptance Records (BAAQMD 8-34-501.8)

The site does not currently contain an industrial waste facility that accepts friable asbestos and non-degradable materials. As such, the GCCS Design Plan for Ox Mountain does not exclude non-degradable waste areas from the collection system. Therefore, BAAQMD Regulation 8-34-501.8 is not applicable.

2.11 Wellhead Monitoring Data (BAAQMD 8-34-501.4 & 8-34-505)

Wellhead monitoring was performed on a monthly basis pursuant to 8-34-505. The well readings for October 1, 2018 through March 31, 2019 are included in Appendix J. Each well was monitored in accordance with the following requirements:

- 8-34-305.1 – Each wellhead shall operate under a vacuum;
- 8-34-305.2 – The LFG temperature in each wellhead shall be less than 55 degrees Celsius (°C) (131 degrees Fahrenheit [°F]); and
- 8-34-305.4 – The oxygen concentration in each wellhead shall be less than five percent by volume.

Wellhead monitoring was performed on the following dates:

- October 1, 3, 11, 12, 15, 17, 22, 26, 29, 30, and 31, 2018;
- November 6, 8, 13, 14, 15, 19, 20, 27, 29, and 30, 2018;
- December 4, 7, 11, 12, 13, 18, 20, 27, and 31, 2018;
- January 3, 8, 10, 11, 14, 17, 19, 21, 22, 23, 24, 25, 26, 28, and 29, 2019;
- February 5, 6, 7, 12, 18, 22, 27, and 28, 2019; and
- March 5, 8, 11, 13, 14, 15, 21, 22, 26, and 27, 2019.

2.11.1 Wellhead Deviations (BAAQMD 8-34-501.9 & §60.757(f)(1))

There were 110 wells with readings that exceeded the limits set forth in BAAQMD Regulation 8-34-305 during the reporting period. Corrective action was initiated within the required five-day time period and re-monitoring was completed within 15 days of the deviation pursuant to BAAQMD Regulation 8-34-414. See Appendix K, Wellfield Deviation Log, for further details.

2.11.2 Higher Operating Value (HOV) Wells

At the time of this submittal, the following wells in Sections 2.11.2.1 and 2.11.2.2 are approved to operate at a HOV.

2.11.2.1 Oxygen HOV Wells

Pursuant to Permit Condition 10164, Part 18(b)(i), the oxygen concentration limit does not apply to wells OXMEW-W17 and HC-F06, provided that the oxygen concentration in the LFG at the main header does not exceed 15 percent oxygen by volume (dry basis).

2.11.2.2 Oxygen and Pressure HOV Wells

Pursuant to the notification and requests for HOVs sent to the BAAQMD on November 3, 2015 and June 15, 2017, the wells noted below may operate at 15 percent oxygen or less. The BAAQMD responded to the initial request submitted on November 3, 2015 on May 6, 2016 by providing language to the current Title V Permit that wells LTS-1 through LTS-12 may operate under LTCO. Cornerstone, on behalf of Republic, responded to the BAAQMD on May 24, 2016 that the provided language was acceptable. The BAAQMD issued a revised Title V permit on September 22, 2016 approving the HOV wells. On June 15, 2017, Ox Mountain submitted a request to the BAAQMD for approval to operate wells LTS-13 through LTS-20 under 8-34-404. The BAAQMD responded to this request on March 8, 2018 by providing updated language to the current Title V Permit. Pursuant to the updated Permit Condition 10164 Part 18, BAAQMD Regulation 8-34-305.3 and 8-34-305.4 shall not apply to wells LTS-13 through LTS-20, provided that the oxygen concentration does not

exceed 15-percent by volume. Additionally, Permit Condition 10164 Part 18(d)(i) has been updated to reflect that the aforementioned wells may operate less than continuously.

Pursuant to Permit Condition 10164 Part 18(d)(iii), components that are connected to the vacuum system may be disconnected from the vacuum system if the oxygen content is equal to or greater than 15 percent or if the temperature is equal to or greater than 131 °F. Therefore, when the following wells are connected to the vacuum system, they may operate up to 15 percent oxygen. The wells to which these HOV values apply are as follows: LTS-1, LTS-2, LTS-3, LTS-4, LTS-5, LTS-6, LTS-7, LTS-8, LTS-9, LTS-10, LTS-11, LTS-12, LTS-13, LTS-14, LTS-15, LTS-16, LTS-17, LTS-18, LTS-19, and LTS-20.

Additionally, pursuant to the updated Title V Permit Condition Number 10164 Part 18(b), BAAQMD 8-34-305.3 and 8-34-305.4 shall not apply to the following wells, provided that the oxygen concentration does not exceed 15-percent: LTS-13, LTS-14, LTS-15, LTS-16, LTS-17, LTS-18, LTS-19, and LTS-20.

2.12 Gas Flow and Temperature Monitoring Results (BAAQMD 8-34-501.10, 8-34-508, & §60.757(f)(1))

The LFG flow rate is measured with a flow meter. The data panel displays the LFG flow and the digital Yokogawa data recorder records LFG flow every two minutes. The flow meter at each flare meets the requirements of BAAQMD Regulation 8-34-508 by recording data at least once every 15 minutes. The flow meter is maintained and calibrated pursuant to manufacturer's recommendations. The flow data for each flare is available for review at Ox Mountain.

Appendix L contains a summary of the monthly LFG flow rates for the flares. Appendix F contains the Flare Flow and Temperature Deviation/Inoperative Monitor/Missing Data Report for October 1, 2018 through March 31, 2019. There were no issues encountered during the reporting period.

2.13 Compliance with §60.757(f)(6)

"The date of installation and the location of each well or collection system expansion added pursuant to (a)(3), (b), (c)(4) of §60.755."

There were no improvements made to the GCCS pursuant to Title V Permit Number A2266 during the reporting period.

A total of four vertical LFG extraction wells and one horizontal LFG collector were decommissioned, two replacement vertical LFG extraction wells, and seven new vertical LFG extraction wells were started up during the reporting period pursuant to Permit Condition 10164, Part 17b(i). Well Startup and Decommissioning Notification Letters that

were prepared by Cornerstone and submitted on behalf of Republic to the BAAQMD are included in Appendix B.

At the time of this submittal, Permit Condition 10164, Part 17b(i) still allows for the replacement of an unlimited number of vertical wells, installation of up to 36 new vertical wells, installation of up to 19 new horizontal collectors, the decommissioning of up to 95 vertical wells, and the decommissioning of up to 10 horizontal collectors.

As of March 31, 2019, Ox Mountain consists of 177 vertical wells, six horizontal collectors, two leachate collection risers, and one trench collector.

2.14 Compliance with Title V Permit Condition Number 10164, Part 5

The unpaved segment of road extending from the end of the paved haul road to the working face does not exceed the 1,200 foot length limit.

2.15 Compliance with Title V Permit Condition Number 10164, Part 6

Ten mile per hour (mph) speed limit signs are posted on sections of unpaved roads.

2.16 Compliance with Title V Permit Condition Number 10164, Part 7

All unpaved roads (excluding limited use access roads) were treated with ten percent magnesium chloride dust suppressant solution at a rate of at least once per calendar month. From October 1, 2018 through March 31, 2019, dust suppressant was applied after any dry period consisting of 30 consecutive days with less than 0.09 inches of rain per day. In addition, water was applied to all unpaved roads at least four times per working day. The watering schedule was reduced during periods of sufficient precipitation to minimize dust emissions. These records are maintained at Ox Mountain and are available upon request.

2.17 Compliance with Title V Permit Condition Number 10164, Part 8

All paved roadways were swept and washed down at least twice per week or as necessary to maintain a clean road surface.

2.18 Compliance with Title V Permit Condition Number 10164, Part 9

On-site vehicle traffic volume did not exceed the number of round trips described in Table 2-2 during any one day:

TABLE 2-2 - ON-SITE VEHICLE TRAFFIC VOLUME

Vehicle Type	Daily Round Trip Limits
Transfer Trucks	178
Packer Trucks	52
Water Trucks	36
Soil Trucks	200
Misc. Heavy Duty Equipment	60
Light Duty Vehicles	250

2.19 Compliance with Title V Permit Condition Number 10164, Part 10

Except for the vehicles listed in Table 2-3, the on-site one way distance traveled by any heavy-duty vehicle (on paved roads only) did not exceed 8,000 feet. This limitation does not apply to the vehicles listed in Table 2-3, which may travel up to a maximum of 11,700 feet (one-way distance) on paved roads.

TABLE 2-3 - VEHICLE TRAFFIC

Vehicle Type	Daily Round Trip Limits
Water Truck	36
Fuel Trucks	2
Employee - Light Duty Equipment	20

2.20 Compliance with Title V Permit Condition Number 10164, Part 13

No contaminated soil containing volatile organic compound (VOC) concentrations greater than 50 ppmv was received during this reporting period. VOC-laden soil (containing less than 50 ppmv of VOCs) was received during this reporting period. The total VOC-laden soil placed did not exceed the 118.75 ton daily limit or the 31,800 ton yearly limit.

2.21 Compliance with Title V Permit Condition Number 16315 for S-12 Stockpile or Green Waste

Appendix N contains monthly and 12-month rolling records of the amount of yard and green waste received for this reporting period. These records are maintained at Ox Mountain and are available upon request.

2.22 Compliance with Title V Permit Condition Number 26216 and 25107 for S-5 Non-Retail Gasoline Dispensing Facility G#8524

Pursuant to Title V Permit Condition Number 26216 and Regulation 2-5, the facility's annual gasoline throughput did not exceed the 400,000 gallon (gal) limit in any consecutive 12-month period. Monthly gasoline throughput totals for the reporting period are included in Appendix O. These records are maintained at Ox Mountain and are available upon request.

Pursuant to Title V Permit Condition Number 25107, the Static Pressure Performance Test (Leak Test) for ST-38 was performed on December 10, 2018, and a copy is included in this report.

2.23 Compliance with Draft Title V Permit Condition Number 10164, Part 20

Pursuant to Title V Permit Condition Number 10164 Part 20, the facility's combined landfill gas flow rate to the flares (A-7, A-8, and A-9) did not exceed 2,155,000,000 scf corrected to 50 percent methane (dry basis, 70°F, one atmosphere [atm]) in any consecutive 12-month period. Monthly combined LFG flow rates to the flares for the reporting period are included in Appendix L. These records are maintained at Ox Mountain and are available upon request.

On October 27, 2017, Cornerstone submitted an application for a change of permit conditions requesting the removal of the A-8 Flare from the Ox Mountain Title V Permit. On June 11, 2018, Cornerstone submitted an application for a change of permit conditions requesting a decrease in the current permitted combined landfill gas flow rate to the flares from 2,155,000,000 scf to 1,575,000,000 scf over any consecutive 12-month period. This request is being made due to the planned decommissioning and removal of the A-8 Flare. At the time of this submittal, Cornerstone is currently awaiting a response from the BAAQMD on these two change of permit conditions applications.

2.24 Compliance with Draft Title V Permit Condition Number 10164, Part 21

Pursuant to Title V Permit Condition Number 10164 Part 21, the facility's total reduced sulfur (TRS) compounds in the collected LFG did not exceed 265 ppmv as hydrogen sulfide (H₂S) averaged over any consecutive rolling 12-month period. Monthly 12-month rolling averages of TRS as H₂S for the reporting period are included in Appendix P. These records are maintained at Ox Mountain and are available upon request.

2.25 Compliance with Draft Title V Permit Condition Number 10164, Part 22

Pursuant to Title V Permit Condition Number 10164 Part 22, the facility's annual average LFG generation did not exceed 6,600 scfm. Also, pursuant to Part 22, fugitive annual average LFG emissions rates, assumed to comprise 25 percent by volume of the LFG generation rate, did not exceed 1,650 scfm. The 12-month rolling LFG generation rates are included in Appendix L.

Pursuant to Title V Permit Condition Number 10164 Part 22, toxic air contaminant (TAC) emissions from waste decomposition (S-1) will be determined from the annual LFG characterization analysis (Source Test) to determine compliance with the emission rate limits listed in Part 22(b). The A-7 and A-8 Flares 2016 Source Tests were performed on September 13, 2016 and was included in Appendix N of the April 1, 2016 through September 30, 2016 report submitted to the BAAQMD and the United States Environmental Protection Agency (USEPA) Region IX on October 31, 2016. Due to non-operation and ongoing maintenance on the A-7 and A-8 Flares, the 2017 Source Test was not performed by September 13, 2017. On October 27, 2017, a Change of Permit Application was submitted to the BAAQMD requesting that Title V Permit Condition Number 10164, Part 30 be changed to include language allowing the extension of the annual source test deadlines during times of prolonged inoperation or maintenance.

The 2018 Source Test was performed at the A-7 and A-9 Flares on September 5, 2018. A copy of this report was included in Appendix Q of the April 2018 through September 2018 SAR submitted to the BAAQMD and USEPA on October 31, 2018.

3 PERFORMANCE TEST REPORT

In accordance with BAAQMD Rule 8-34-413 and 40 CFR §60.757(g) in the NSPS, a Performance Test Report is required to be submitted from affected facilities containing performance and monitoring data for the operation of the GCCS. The operational records listed in Table 3-1 have been reviewed, summarized, and are included in the following table.

TABLE 3-1 – PERFORMANCE TEST REQUIREMENTS

Rule	Requirement	Location in Report
8-34-412, §60.8, §60.752(b)(2)(iii)(B), §60.754(d)	Compliance Demonstration Test	Section 3.1,
§60.757(g)(1)	A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for future collection system expansion.	Section 3.2, Appendix A
§60.757(g)(2)	The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based.	Section 3.3
§60.757(g)(3)	The documentation of the presence of asbestos or non-degradable material for each area from which collection wells have been excluded based on the presence of asbestos or non-degradable material.	Section 3.4
§60.757(g)(4)	The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on non-productivity and the calculations of gas generation flow rate for each excluded area.	Section 3.5
§60.757(g)(5)	The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill.	Section 3.6
§60.757(g)(6)	The provisions for the control of off-site migration.	Section 3.7, Appendix M

3.1 Flare (A-7, A-8, and A-9) Compliance Demonstration Test Results BAAQMD 8-34-412)

The A-7 and A-9 Flares 2018 Source Tests were performed on September 5, 2018 and the results were included in Appendix N of the previous report submitted to the BAAQMD and the USEPA Region IX on October 31, 2018.

On October 27, 2017, a Change of Permit Conditions Application was submitted to the BAAQMD requesting that Title V Permit Condition Number 10164, Part 30 be changed to

include language allowing the extension of the annual source test deadlines during times of prolonged inoperation or maintenance. The same Change of Permit Conditions Application requested that the A-8 Flare be removed from the Title V Permit.

Due to the non-operation of the A-8 Flare in 2018, it was not source tested. Additionally, the A-8 Flare is scheduled to be decommissioned and will not operate again.

3.2 Compliance with §60.757(g)(1)

“A diagram of the collection system showing collection system positioning including wells, horizontal collectors...”

A map of the LFG collection system showing the location of all vertical wells, horizontal collectors, and other LFG extraction devices is included in Appendix A.

3.3 Compliance with §60.757(g)(2)

“The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based.”

The existing GCCS consists of LFG wells and collectors spaced in accordance with standard industry practices. Based on continuous compliance and operational experience the installed collector density appears adequate for controlling surface emissions and subsurface LFG migration.

The landfill operator will conduct routine monitoring in accordance with NSPS requirements. If the GCCS at the landfill does not meet the measures of performance set forth in the NSPS, the GCCS will be adjusted or modified as required.

The existing GCCS conveyance piping and emission control devices have sufficient capacity to handle all current and future LFG flow rates (based on quarterly SEM results and monthly wellhead readings). New emission control devices will be designed and permitted as appropriate for future LFG generation rates.

3.4 Compliance with §60.757(g)(3)

“The documentation of the presence of asbestos or non-degradable material for each area from which collection wells have been excluded based on the presence of asbestos or non-degradable material.”

Segregated areas or accumulations of asbestos material were not documented for the site in the GCCS Design Plan. Therefore, §60.757(g)(3) is not applicable.

3.5 Compliance with §60.757(g)(4)

“The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on non-productivity and the calculations of gas generation flow rate for each excluded area.”

There are no non-productive areas that have been excluded from the coverage of the GCCS. Therefore, §60.757(g)(4) is not applicable.

3.6 Compliance with §60.757(g)(5)

“The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill.”

The existing GCCS conveyance piping and emission control devices have sufficient capacity to handle all current and future LFG flow rates. New emission control devices will be designed and permitted as appropriate for future LFG generation rates.

3.7 Compliance with §60.757(g)(6)

“The provisions for the control of off-site migration.”

Quarterly LFG migration monitoring, including all probes and on-site buildings, occurred on the following dates:

- Fourth Quarter 2018 – October 1, 9, 15, 2018; November 2, 6, 13, 20, 27, 2018; and December 4, 11, 18 and 27, 2018; and
- First Quarter 2019 – January 3, 8, 15, 25, 29, 2019; February 5, 12, 22, 27, 2019; and March 5, 13, and 18, 2019.

Exceedances of the five-percent by volume methane limit were detected at three probes (OXPGP09A, OXPGP09B, and OXPGP17C) during the Second Quarter 2018. On June 15, 2018, Cornerstone submitted a notification to the Local Enforcement Agency (LEA) regarding elevated methane levels detected at perimeter gas probe OXPGP17C that were initially detected on June 8, 2018.

On July 3, 2018, Cornerstone submitted a notification to the LEA regarding elevated methane levels detected at OXPGP09A, OXPGP09B, and OXPGP09C on June 27, 2018. A Remediation Plan was due for submittal to the LEA within 60 days of the initial detection (August 7, 2018 and August 26, 2018, respectively).

On August 3, 2018, Cornerstone submitted the Remediation Plan to the LEA for OXPGP09A, OXPGP09C and OXPGP17C. Probes OXPGP6RA, OXPGP6RB, and OXPGP09B were found to be no longer in exceedance of the five-percent by volume

methane limit at the end of the reporting period. However, Probes OXPGP09A, OXPGP17A, OXPGP17B, and OXPGP17C remained in exceedance.

On September 14, 2018, a seven-day notification was submitted to the LEA for Probes OXPGP6RA, OXPGP6RB, OXPGP17A, and OXPGP17B for additional exceedances detected. Probe 6RA was in compliance during re-monitoring on September 10, 2018.

On October 5, 2018, Cornerstone submitted a Request for Limited Exemption from Regulation 8, Rule 34, Section 303 (118 Plan) to the BAAQMD regarding the anticipated installation of new vertical LFG extraction wells near these aforementioned probes, to assist with mitigating the migration of methane at these probes.

On November 6, 2018, a Probe Remediation Plan was submitted to the BAAQMD regarding seven new vertical LFG extraction wells being installed to assist with the migration of methane. However, on March 5, 2019, the LEA notified BFI that the remediation plan was deemed insufficient to address the migration of methane at the probes.

On March 25, 2019, Cornerstone submitted another notification for methane exceedances during the First Quarter 2019 Perimeter Probe monitoring event for Probes OXMNTMP4, OXPGP16B, and OXPGP16C. Cornerstone is working with BFI on the submittal on a revised Probe Remediation Plan, to be submitted to the LEA and CalRecycle before May 3, 2019, as required.

The LFG Probe and In-Structure Monitoring Reports are included in Appendix M.

The Landfill operator will continue surface and perimeter monitoring in accordance with the approved monitoring plans. If the GCCS at the landfill does not meet the measures of performance set forth in the NSPS, the GCCS will be adjusted or modified in accordance with the NSPS requirements.

4 START-UP, SHUTDOWN, MALFUNCTION (SSM) PLAN

4.1 SSM Log for the GCCS at Ox Mountain

The NESHAP contained in 40 CFR Part 63, AAAA for MSW landfills include the regulatory requirements for submittal of a semi-annual report (under 40 CFR §63.10(d)(5) of the general provisions) if an SSM event occurred during the reporting period. The reports required by §63.1980(a) of the NESHAP and §60.757(f) of the NSPS summarize the GCCS exceedances. These two semi-annual reports contain similar information and have been combined as allowed by §63.10(d)(5)(i) of the General Provisions.

NESHAP 40 CFR part 63, AAAA became effective on January 16, 2004. Those SSM events that occurred during the NSPS semi-annual reporting period are reported in this section (October 1, 2018 through March 31, 2019). The following information is included as required:

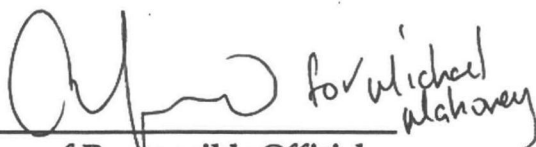
- During the reporting period, there were 135 SSM events at the A-7 Flare. Additional details are available in the SSM log for the A-7 Flare located in Appendix D, Flare SSM Log.
- During the reporting period, the A-8 Flare did not operate therefore there were no SSM events. Additional details are available in the SSM log for the A-8 Flare located in Appendix D, Flare SSM Log.
- During the reporting period, 101 SSM events occurred at the A-9 Flare. Additional details are available in the SSM log for the A-9 Flare located in Appendix D, Flare SSM Log.
- During the reporting period, 15 SSM events occurred in the wellfield. Details are included in Appendix C, Well SSM Log.
- There were 251 events in total. In all 251 events, automatic systems and operator actions were consistent with the standard operating procedures contained in the SSM Plan. There were no deviations from the SSM plan.
- There were no identified exceedances during the reporting period of any applicable emission limitation in the landfills NESHAP (§63.10(d)(5)(i)).
- Revisions of the SSM Plan to correct deficiencies in the landfill operations or procedures were neither required, nor prepared (§63.6(e)).

Attachments:

Combined Title V Semi-Annual and Partial 8-34 Annual Report

I certify the following:

Based on information and belief formed after reasonable inquiry, information on the startup, shutdown, malfunction forms, all accompanying reports, and other required certifications are true, accurate, and complete.

 for Michael Mahoney

Signature of Responsible Official

4/26/19

Date

Michael Mahoney

Name of Responsible Official

