

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, 2017 through March 31, 2018. 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
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

Rule	Requirement	Location in Report
§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 9.22 hours of GCCS downtime for the reporting period of October 1, 2017 through March 31, 2018. The total downtime for 2017 was 142.85 hours, out of an allowable 240 hours. The total downtime for 2018 as of March 31, 2018 is 4.55 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 three wellfield SSM events that occurred during the reporting period. A total of three wells were decommissioned 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 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, 2017 through March 31, 2018.

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 30, 2017;
- November 27, 2017;
- December 26, 2017;
- January 29, 2018;
- February 28, 2018; and
- March 26, 2018.

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 2017 and Fourth Quarter 2017 Instantaneous and Integrated Surface Emission Monitoring (SEM) events were completed by a third-party. The Third Quarter 2017 SEM Report was unavailable at the time the April 1, 2017 through September 30, 2017 report was submitted. Therefore, the Third Quarter 2017 SEM Report is included in this report. The First Quarter 2018 SEM Report was unavailable at the time of this submittal. Therefore, the First Quarter 2018 SEM Report will be included in the April 1, 2018 through September 30, 2018 report. Refer to the Third Quarter 2017 and Fourth Quarter 2017 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 2017 – October 24 and 25, 2017; and
- First Quarter 2018 – January 16 and February 12, 2018.

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.

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, 2017 through March 31, 2018 was approximately 281,069.12 tons. The current Waste-In-Place (WIP) as of March 31, 2018 is approximately 23,305,713.05 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 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, 2017 through March 31, 2018 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 2, 9, 11, 13, 16, 17, 23, and 31, 2017;
- November 7, 8, 13, 20, 27, 28, and 29, 2017;
- December 4, 6, 11, 12, 20, 26, 27, and 28, 2017;
- January 9, 10, 15, 18, 24, 29, 30, and 31, 2018;
- February 1, 5, 6, 7, 8, 13, 15, 20, 21, 27, and 28, 2018; and
- March 6, 12, 13, 15, 20, 26, and 29, 2018.

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

There were 69 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

As of March 31, 2018, 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 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, 2017 through March 31, 2018. 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 three wells were decommissioned during the reporting period pursuant to Permit Condition 10164, Part 17b(i). Well Startup Notification Letters that were prepared by Cornerstone and submitted on behalf of Republic to the BAAQMD are included in Appendix B.

As of March 31, 2018, Permit Condition 10164, Part 17b(i) still allows for the replacement of an unlimited number of vertical wells, installation of up to 59 new vertical wells, installation of up to 20 new horizontal collectors, the decommissioning of up to 112 vertical wells, and the decommissioning of up to 12 horizontal collectors.

As of March 31, 2018, Ox Mountain consists of 165 vertical wells, six horizontal collectors, two leachate collection risers, and 18 trench collectors.

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, 2017 through March 31, 2018, 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 January 16, 2018. Refer to Appendix O for the Static Pressure Performance Test results.

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, 1 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.

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 landfill did not exceed 265 ppmv as hydrogen sulfide (H_2S) averaged over any consecutive rolling 12-month period. Monthly 12-month rolling averages of TRS as H_2S 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 previous 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 2017 Source Test was performed at the A-9 Flare on September 21, 2017. A copy of this report is included in Appendix Q of this report.

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, 2017 through March 31, 2018). The following information is included as required:

- During the reporting period, there were five 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, there were no SSM events at the A-8 Flare. Additional details are available in the SSM log for the A-8 flare located in Appendix D, Flare SSM Log.
- During the reporting period, 145 SSM events occurred at the A-9 Flare. The A-9 Flare was shut down and restarted during the reporting period due to the reasons noted in Appendix D, Flare SSM Log.
- During the reporting period, three SSM events occurred in the wellfield. Details are included in Appendix C, Well SSM Log.
- There were 154 events in total. In all 154 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)).



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

I certify the following:

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



Signature of Responsible Official

4/27/11

Date

Michael Mahoney

Name of Responsible Official