

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 Vasco Road. The report contains monitoring data for the operation of the landfill gas collection and control system (GCCS). The operational records have been reviewed and summarized. The timeframe included in this report is August 1, 2011 through January 31, 2012. 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
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 E
8-34-501.4, 8-34-505, 8-34-510	Testing performed to satisfy any of the requirements of this rule.	Section 2.4 & 2.10 Appendices F & J
8-34-501.5	Monthly landfill gas flow (LFG) rates and well concentration readings for facilities subject to 8-34-404.	Section 2.5, 2.11 Appendix K
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 2.6 & 2.7, Appendices G & H
8-34-501.7	Annual waste acceptance rate and current amount of waste in-place.	Section 2.8
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 2.9

RULE	REQUIREMENT	LOCATION IN REPORT
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.	Section 2.10, 2.10.1, Appendices J & K
8-34-501.10, 8-34-508, §60.757(f)(1)	Continuous gas flow rate records for any site subject to Section 8-34-508.	Section 2.11, Appendices E and L
8-34-501.11, 8-34-508	For operations subject to Section 8-34-509, records or key emission control system operating parameters.	Section 2.2.2
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)(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)(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 2.12, Appendices A & C
§60.10 (d)(5)(i)	Startup, Shutdown, Malfunction Events	Section 4.0, Appendices C & D

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

Appendix A contains a current map of Vasco Road's existing GCCS. Section 2.1.1 includes the GCCS downtime for the reporting period. The information contained in Section 2.1.2 includes the wellfield SSM event information.

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. The downtime for the reporting period of August 1, 2011 through January 31, 2012 was 10.29 hours. The total downtime for the 2011 calendar year and partial 2012 calendar was 39.86 and was 0.00 hours, respectively, out of an allowable 240 hours per year.

2.1.2 Well Start-Up & Disconnection Log

There were ninety-three (93) wellfield SSM events that occurred during the reporting period. There were sixteen (16) wells started-up and sixty-six (66) wells decommissioned during the reporting period. See Appendix C, Wellfield SSM Log for details of well disconnection and reconnection events. Start-up and Decommissioning Notifications were submitted to the BAAQMD and are included in Appendix B.

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

The emission control system consists of one flare (A-4), which began operation in June 2009. The control system was not bypassed at any time during the reporting period. Raw LFG was not emitted during the reporting period. The SSM log for the A-4 Flare is located in Appendix D. As indicated in Section 2.1.1, the total GCCS downtime for the reporting period of August 1, 2011 through January 31, 2012 was 10.29 hours out of an allowable 240 hours per year. The GCCS Downtime Log for the reporting period is included in Appendix D.

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

Title 40 CFR §60.757(f)(2) is not applicable at Vasco Road because a by-pass line has not been installed. LFG cannot be diverted from the control equipment.

2.2.2 Key Emission Control Operating Parameters (BAAQMD 8-34-501.11 & 8-34-509)

BAAQMD Regulation 8-34-501.11 and 8-34-509 are not applicable to the A-4 Flare because the A-4 Flare is subject to continuous temperature monitoring as required in BAAQMD Regulation 8-34-507 and §60.757(f)(1).

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

The combustion zone temperature of the flare is monitored with Thermo-Electric Thermocouples. The temperature is recorded every twenty seconds with a Yokogawa FX100 digital recorder, and the data is downloaded and archived. There were no temperature deviations during the reporting period. Appendix E contains the Flare Temperature Deviation/ Inoperative Monitor/Missing Data Report for August 1, 2011 through January 31, 2012.

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

The cover integrity monitoring was performed on the following dates:

- August 22, 2011;
- September 26, 2011;

- October 14, 2011;
- November 18, 2011;
- December 8, 2011; and
- January 10, 2012.

Please refer to the Monthly Cover Integrity Monitoring Logs, which are included in Appendix F.

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

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

2.6 Surface Emissions Monitoring (BAAQMD 8-34-501.6, 8-34-506, §60.757(f)(5) & California Air Resources Board Assembly Bill 32 Methane Control Measure (CARB AB-32 LF MCM))

Quarterly Surface Emissions Monitoring (SEM), was conducted for Third and Fourth Quarter 2011. Refer to the Third and Fourth Quarter 2011 SEM Reports, located in Appendix G, for detailed results.

2.7 Component Leak Testing (BAAQMD 8-34-501.6 & 8-34-503)

Quarterly component leak testing, pursuant to BAAQMD Regulation 8-34-503, occurred during the reporting period on the following dates:

- Third Quarter 2011 – July 21, September 7 and 9, 2011
- Fourth Quarter 2011 – October 28, 2011

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

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

The amount of waste accepted total during 2011 was 664,691.97 tons. The amount of waste accepted during the reporting period of August 31, 2011 through January 31, 2012 was approximately 367,839.57 tons. The current Waste-In-Place as of January 31, 2012 is approximately 12,822,572 tons.

2.9 Non-degradable waste acceptance records (BAAQMD 8-34-501.8)

The GCCS Design Plan for Vasco Road does not indicate non-degradable waste areas that are excluded from the collection system. Therefore, BAAQMD Regulation 8-34-501.8 is not applicable.

2.10 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 August 1, 2011 through January 31, 2012 are included in Appendix I. 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 5 percent by volume.

Wellhead monitoring was performed on the following dates:

- August 4, 11, 22, 26, 29, and 30, 2011;
- September 9, 12, 23, and 26, 2011;
- October 7, 17, 18, 21, 22, and 24, 2011;
- November 1, 10, 18, 21, and 28, 2011;
- December 2, 6, 9, and 12, 2011; and
- January 4, 5, 10, and 23, 2012.

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

There were 28 wells with readings that exceeded the limits set forth in BAAQMD Regulation 8-34-305 during the reporting period. Corrective action for wells was initiated within the required 5-day time period and re-monitoring was completed within 15 days of the deviation pursuant to BAAQMD Regulation 8-34-414. See Appendix J, Wellfield Deviation Log, for more detail.

2.10.2 Higher Operating Value (HOV) Wells

As of January 31, 2012, the following wells are approved to operate at a HOV for temperature and oxygen pursuant to Title V Permit Condition Number 818 Part 3b(i-ii):

Temperature HOV Wells

Pursuant to Title V Permit Condition 818, Part 3(b)(i), the following wells are approved to operate at a temperate HOV of 140°F: EW-9, EW-33A and EW-44. The following decommissioned wells were HOV approved: OEW-HA, OEW-HB, OEW-14, EW-43, EW-45, EW-52, EW-53, EW-54, EW-57 and EW-58.

Oxygen HOV Wells

Pursuant to Title V Permit Condition 818, Part 3(b)(ii), the oxygen concentration limit does not apply to the wells listed below, provided that the oxygen concentration in the LFG at the main header does not exceed five percent oxygen by volume (dry basis) and the methane concentration is greater than 35 percent by volume (dry basis): EW-9, EW-27, EW-31, EW-32A, EW-33A, EW-35, EW-36, EW-36A, EW-38, EW-40, EW-41 and

EW-42A. The following decommissioned wells were approved for higher oxygen concentration in the LFG: OEW-6, OEW-10, OEW-11, OEW-13, OEW-14, OEW-HA, OEW-HB, EW-15, EW-16, EW-26, EW-29, EW-29A, EW-32, EW-33, EW-43, EW-51 and EW-58.

The following wells are approved for both the temperature and oxygen HOV listed above: EW-9 and EW-33A. The following decommissioned wells were approved for both the temperature and oxygen HOV: OEW-HA, OEW-HB, OEW-14, EW-43 and EW-58.

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

The flare LFG flow rate is measured with a Rosemount Model Number 3051CD0A02A1AB2E5H2L404 flow meter. The General Electric data panel displays the LFG flow and the digital Yokogawa data recorder records LFG flow every twenty seconds and the data is downloaded and saved to a compact flash card. The flare flow meter meets the requirements of BAAQMD Regulation 8-34-508 by recording data at least every 15 minutes. The flow meter is maintained and calibrated pursuant to manufacturer's recommendations. The flow data for the flare is available for review at Vasco Road. Appendix K contains a summary of the monthly LFG flow rates for the flare. No deviations of the flare flow were identified during the monitoring period. Table 2-2 below is a summary of the total LFG flow for the reporting period of August 1, 2011 through January 31, 2012.

Table 2-2 Total LFG Flow for August 1, 2011 through January 31, 2012

Emission Control Device	Average Flow (scfm)	Average CH ₄ (%) ^a	Total LFG Volume (scf)	Total CH ₄ Volume (scf)	Heat Input (MMBTU)
A-4 Flare	2,359.5	42.6	623,818,171.7	265,715,576.0	269,201.2

scfm = standard cubic feet per minute

CH₄ = methane

scf = standard cubic feet

^aMethane content determined from the June 9, 2011 Source Test

MMBTU = million British thermal units

2.12 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."

The GCCS was modified pursuant to Title V Permit Number A3294 during the reporting period.

There were sixty-six (66) wells decommissioned and sixteen (16) wells started up during the reporting period pursuant to Application Number 23493. Well Decommissioning and

Startup Notification Letters were submitted to the BAAQMD and are included in Appendix B.

Application Number 23493 still allows for the replacement unlimited vertical wells, installation of up to eighty-three (83) new vertical wells, installation of up to twenty (20) new horizontal collectors, the decommissioning of up to eighty-seven (87) vertical wells, and the decommissioning of up to twelve (12) horizontal collectors.

As of January 1, 2012, Vasco Road consists of seventy-eight (78) vertical wells and nine (9) horizontal collectors.

2.13 Compliance with Title V Permit Condition Number 7523 for S-7 Non-Retail Gasoline Dispensing Facility G#9551

Vasco Road's gasoline throughput for the period of August 1, 2011 through January 31, 2012 is 1,386.4 gallons. Vasco Road's annual gasoline throughput for the period of February 1, 2011 through January 31, 2012 is 2,477.1 gallons. This is within the limit of 400,000 gal per any consecutive 12-month period pursuant to BAAQMD Toxic Section Policy. Monthly gasoline throughput totals for the reporting period are listed in Table 2-3:

Table 2-3 Gasoline Throughput for S-7

Month	Total Throughput (gallons)	Rolling 12-Month Fuel Usage (gallons)
February 1, 2011 through July 31, 2011		1,090.7
August 2011	274.4	1,365.1
September 2011	219.6	1,584.7
October 2011	208.2	1,792.9
November 2011	188.8	1,981.7
December 2011	228.9	2,210.6
January 2012	266.5	2,477.1
TOTAL:	1,386.4	2,477.1

These records are maintained at Vasco Road and can be made available upon request.

2.14 Compliance with Title V Permit Condition Number 12203 for S-5 Pugmill

Title V Permit Condition Number 12203 for S-5 is no longer applicable. S-5 no longer exists at Vasco Road.

2.15 Compliance with Title V Permit Condition Number 12204 for S-6 Silo and A-6 Baghouse

Title V Permit Condition Number 12204 for S-6 is no longer applicable. S-6 no longer exists at Vasco Road.

2.16 Compliance with Title V Permit Condition Number 20396 for S-8 Diesel Engine (Powering S-5 Pugmill)

Title V Permit Condition Number 20396 for S-8 is no longer applicable. S-8 no longer exists at Vasco Road.

2.17 Compliance with Title V Permit Condition Number 20511 for S-9 Diesel Engine (Powering Truck Tipper)

The S-9 Diesel Engine did not operate for more than 6 hours during any one day during the period of August 1, 2011 through January 31, 2012.

Vasco Road's total operation time of the S-9 Diesel Engine during the period of August 1, 2011 through January 31, 2012 is 174.8 hours. Vasco Road's total operation time of the S-9 Diesel Engine during the period of February 1, 2011 through January 31, 2012 is 345.5 hours. This is within the limit of 1,872 hours of operation during any consecutive 12-month period, pursuant to Title V Permit Condition #20511, Part 1.

These records are maintained at Vasco Road and can be made available upon request.

2.18 Compliance with Title V Permit Condition Number 20512 for S-10 Diesel Engine (Powering Pugmill Control Panel)

Title V Permit Condition Number 20512 for S-10 is no longer applicable. S-10 no longer exists at Vasco Road.

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 subject facilities containing performance and monitoring data for the operation of the GCCS. A copy of the most recent Performance Test conducted on June 9, 2011 is included in Appendix M.

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 Appendix M
§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 L

3.1 Flare (A-4) Compliance Demonstration Test Results (BAAQMD 8-34-412)

The Compliance Demonstration Test (Performance Test) was performed on the A-4 Flare by Blue Sky Environmental, Inc. on June 9, 2011, pursuant to BAAQMD

Regulation 8-34-412. A copy of this Performance Test Report is included in Appendix M.

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 has historically provided LFG wells and collectors spaced in accordance with standard industry practices. Based on continuous compliance and operational experience the installed collector density appears more than 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 surface emissions monitoring results and monthly wellhead readings). New emission control devices will be designed and permitted as appropriate for future landfill 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 not any 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 landfill 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:

- Third Quarter 2011 – August 30, 2011
- Fourth Quarter 2011 – November 11, 2011

There were no exceedances detected during the Third Quarter 2011 and Fourth Quarter 2011 Probe and building monitoring events. The LFG Probe and In-Structure Monitoring Reports are included in Appendix L.

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 STARTUP, SHUTDOWN, MALFUNCTION (SSM) PLAN

SSM Log for the GCCS at Vasco Road

The NESHAP contained in 40 CFR Part 63, AAAA for MSW landfills to control hazardous air pollutants 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 (August 1, 2011 through January 31, 2012). The following information is included as required:

- During the reporting period, nine (9) A-4 Flare SSM events occurred. The A-4 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, 93 Wellfield SSM events occurred. Details are included in Appendix C, Well SSM Log.
- There were one-hundred and two (102) events in total. In all 102 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.
- Exceedances were not identified during the reporting period in 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)(3)(viii)).