

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 Newby Island Landfill. 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, 2012 through January 31, 2013. 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 L
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, Appendix I
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
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, 8-34-509	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 Newby Island'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 individual well shutdown times and the reason for the shutdown.

2.1.1 Collection System Downtime

During the period covered in this report, the GCCS was not shut down for more than 5 days on any one occasion. The downtime for the reporting period of August 1, 2012 through January 31, 2013 was 26.52 hours. The total downtime for the 2012 calendar year is 28.50 hours and the total downtime for the partial 2013 calendar year is 0.0 out of an allowable 240 hours per year. Per direction from Republic Operations personnel, no GCCS downtime is accrued unless Cornerstone is notified by AEG West (AEG) technicians that all onsite Flares (A-1 and A-2 Flares) and offsite internal combustion (IC) engine power generators (operated by Fortistar) and IC engine power generators (operated by the San Jose/Santa Clara Water Pollution Control Plant) emission control devices are not operating. The IC engine power generators operated by Fortistar and San Jose/Santa Clara Water Pollution Control Plant operate under separate Title V permits than the Newby Island Title V.

Appendix D contains the A-1 and A-2 Flare Downtime Reports which lists dates, times, and lengths of shutdowns for the reporting period and year-to-date. Appendix E contains the GCCS Downtime.

2.1.2 Well Start-Up & Disconnection Log

There were 86 wellfield SSM events that occurred during the reporting period. There were 33 wells started-up and 26 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 C.

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

The emission control system consists of two flares (A-1 and A-2), which began operation in 1997 and 2005, respectively. 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-1 and A-2 Flares 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 Newby Island 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-1 and A-2 Flares because the A-1 and A-2 Flares are 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 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 Temperature Deviation/Inoperative Monitor/Missing Data Report for August 1, 2012 through January 31, 2013.

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

The cover integrity monitoring was performed on the following dates:

- August 31, 2012;

- September 27, 2012;
- October 31, 2012;
- November 29, 2012;
- December 31, 2012; and
- January 28, 2013.

During the August, September, October, November, December 2012, and January 2013 Monthly Cover Inspections, AEG West noted that litter was present on-site but it was remediated by litter pickers. The Monthly Cover Integrity Monitoring Logs are included in Appendix G.

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

Newby Island 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 Quarter 2012. Refer to the Third Quarter 2012 SEM Report, located in Appendix H, 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 2012 – August 16, 22, 24, and 30, and September 27, 2012;
- Fourth Quarter 2012 – October 31, November 6, and 8, 2012; and
- First Quarter 2013 – January 24, 25, and 28, 2013.

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

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

The Annual Waste Acceptance Rate was compiled for the timeframe of August 1, 2012 through January 31, 2013. The amount of waste accepted during the reporting period was approximately 556,927 tons. The current Waste-In-Place as of January 31, 2013 is approximately 29,351,895 tons.

2.9 Non-degradable Waste Acceptance Records (BAAQMD 8-34-501.8)

The GCCS Design Plan for Newby Island 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, 2012 through January 31, 2013 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 5 percent by volume.

Wellhead monitoring was performed on the following dates:

- August 2, 3, 6, 8, 9, 16, 20, 21, 22, 23, 28, 30, and 31, 2012;
- September 4, 7, 8, 10, 11, 12, 13, 17, 18, 19, 20, 21, 24, and 26, 2012;
- October 2, 3, 4, 5, 10, 11, 16, 18, 19, 24, 25, and 29, 2012;
- November 1, 2, 5, 6, 15, 19, 21, 27, 29, and 30, 2012;
- December 3, 4, 6, 7, 10, 11, 13, 17, 18, 20, 22, 27, and 31, 2012; and
- January 3, 4, 7, 9, 11, 15, 16, 17, 18, and 28, 2013.

2.10.1 Wellhead Deviations (BAAQMD8-34-501.9 & §60.757(f)(1))

There were 85 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 K, Wellfield Deviation Log, for more detail.

2.10.2 Higher Operating Value (HOV) Wells

As of January 31, 2013, the following wells are approved to operate at a HOV for oxygen and temperature pursuant to Title V Permit Condition 10423, Part 6c(i) and Part 6d(i), respectively:

Oxygen HOV Wells

Pursuant to Title V Permit Condition Number 10423, Part 6(c)(i), 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 5 percent oxygen by volume (dry basis) and the methane concentration is greater than 35 percent by volume (dry basis): 30RR, EW-09, EW-13, 72R, 101R, 103R, 13R, EW-20R, 224R, 237R, and HC-201.

Temperature HOV Wells

Pursuant to Title V Permit Condition Number 10423, Part 6(d)(i), the following wells are approved to operate at a temperate HOV of 145°F: EW-39R, EW-40R, EW-14, EW-15, EW-37, 5, A, B, C, D, E, 14, 16, 19, 25, 106R, 218, 224R, 243, 31R, 51R, and 54R. Pursuant to Title V Permit Condition Number 10423, Part 6(d)(i), the following wells are approved to operate at a temperate HOV of 150°F: EW07R.

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 flow meter. The General Electric data panel displays the LFG flow and the digital Yokogawa data recorder records LFG flow every minute and 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 Newby Island. Appendix L contains a summary of the monthly LFG flow rates for the flares. Appendix F contains the Flare Temperature Deviation/ Inoperative Monitor/Missing Data Report for August 1, 2012 through January 31, 2013. Table 2-2 below is a summary of the total LFG flow for the reporting period of August 1, 2012 through January 31, 2013.

**TABLE 2-2 TOTAL LFG FLOW FOR
AUGUST 1, 2012 THROUGH JANUARY 31, 2013**

EMISSION CONTROL DEVICE	AVERAGE FLOW (SCFM)	AVERAGE CH ₄ (%) [*]	TOTAL LFG VOLUME (SCF)	TOTAL CH ₄ VOLUME (SCF)	2012 HEAT INPUT (MMBTU)
A-1 Flare	1,209.0	48.1	285,002,725.0	137,086,310.7	123,672.3
A-2 Flare	992.6	50.1	258,136,342.5	129,336,254.4	302,245.7

scfm = standard cubic feet per minute
 CH₄ = methane
 scf = standard cubic feet
^{*}Methane content determined from the March 1, 2012 Source Test
 MMBTU = million British thermal units

2.12 Compliance with Title V Permit Condition Number 10423 Part 10

Pursuant to Title V Permit Condition Number 10423, Part 10(a), quarterly hydrogen sulfide (H₂S) readings were taken using Draeger tubes. All 2012 Quarterly H₂S readings and quarterly averages are included in Appendix N, H₂S Quarterly Monitoring. The First Quarter 2013 H₂S reading will be collected by March 31, 2013, and included in the subsequent SAR.

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."

The GCCS was modified pursuant to Title V Permit Number A9013 during the reporting period.

There were 26 wells decommissioned and 33 wells were started up during the reporting period pursuant to Application Number 23393 that was deemed complete on June 21, 2011. Well Decommissioning Notification Letters were submitted to the BAAQMD and are included in Appendix B.

Title V Permit Condition Number 10423, Part 6(b), still allows for the replacement of up to unlimited vertical wells, installation of up to 53 new vertical wells, installation of up to 16 new horizontal collectors, the decommissioning of up to 67 vertical wells, and the decommissioning of up to nine (9) horizontal collectors.

As of January 31, 2013, Newby Island consists of 197 vertical wells and 10 horizontal collectors.

2.14 Compliance with Title V Permit Condition Number 14908 for S-4 Non-Retail Gasoline Dispensing Facility G#9641

Newby Island's gasoline throughput for the period of August 1, 2012 through January 31, 2013 is 5,153.5 gallons (gal). Newby Island's annual gasoline throughput for the period of February 1, 2012 through January 31, 2013 is 10,088.5 gal. Appendix O contains monthly throughput records for this reporting period. This is within the limit of 940,000 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-4

TABLE 2-3 GASOLINE THROUGHPUT FOR S-4		
August 2012	945.2	9,342.2
September 2012	747.8	9,382.5
October 2012	998.1	9,797.2
November 2012	922.1	10,121.2
December 2012	719.1	10,151.5
January 2013	821.2	10,088.5
TOTAL:	5,153.5	

These records are maintained at Newby Island and can be made available upon request.

2.15 S-8 Horizontal Grinder/Operations and S-9 Trommel Screen/Operations

The S-8 Horizontal Grinder/Operations and S-9 Trommel Screen/Operations replaced the previously existing sources S-5 and S-6 and are registered under the California Air Resources Board (CARB) Portable Equipment Registration Program (PERP). The S-8 Horizontal Grinder/Operations permitted under CARB PERP Registration Number 149997. The S-9 Trommel Screen/Operations permitted under CARB PERP Registration Number 125994.

4 START-UP, SHUTDOWN, MALFUNCTION REPORT

4.1 SSM Log for the GCCS at Newby Island

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, 2012 through January 31, 2013). The following information is included as required:

- During the reporting period, 134 A-1 Flare SSM events occurred. The A-1 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, 18 A-2 Flare SSM events occurred. The A-2 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, 86 Wellfield SSM events occurred. Details are included in Appendix C, Well SSM Log.
- There were 238 events in total. In all 238 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)).