BAAQMD Rule 8-34 Semi-Annual Report, Title V Semi-Annual Report, and Title V Annual Certification

City of Sunnyvale Landfill and SMaRT Station<sup>®</sup> Sunnyvale, California (Facility No. 5905)

#### Prepared for:



TV Tracking #: 889

1. D RECEIVED IN 1/26/2024 ENFORCEMENT:

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#### For Submittal to:

Bay Area Air Quality Management District 375 Beale Street, Suite 600 San Francisco, CA 94105

# SCS ENGINEERS

01200220.07 Task 59 | January 2024

3843 Brickway Boulevard, Suite 208 Santa Rosa, CA 95403 707-546-9461 This submittal consisting of the Bay Area Air Quality Management District (BAAQMD) Rule 8-34 Semi-Annual Report, the Title V Semi-Annual Monitoring Report, and the Title V Annual Compliance Certification for the Sunnyvale Landfill in Sunnyvale, California, dated January 2024, was prepared and reviewed by the following:

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## SECTION I. BAAQMD RULE 8-34 SEMI-ANNUAL REPORT

#### 1.0 INTRODUCTION

This Bay Area Air Quality Management District (BAAQMD) Rule 8-34 Semi-Annual Report for the Sunnyvale Landfill (Landfill) is for the July 1, 2023 through December 31, 2023 reporting period. As approved by the BAAQMD on November 13, 2013, Rule 8-34 reports are synchronized with the reporting periods specified in the Landfill's Initial Major Facility Review (MFR or Title V) Permit, which was issued by the District on September 19, 2013. As such, the semi-annual Reports cover the semi-annual period January 1 through June 30 and July 1 through December 31, with respective reporting deadlines of July 31 and January 31. This semi-annual report was prepared by SCS Engineers (SCS) on behalf of the City of Sunnyvale Environmental Services Department (City) for submittal to the BAAQMD.

The Landfill was originally assigned BAAQMD Plant No. 2253; however, this designation was changed to No. 5905 when it was combined with the SMaRT Station®. This change was made in anticipation of these two facilities being placed under a single Title V permit. The Semi-Annual Report pertains to the landfill gas (LFG) collection and control system (GCCS) operated at the Landfill.

This report includes the following information, as required by BAAQMD Rule 8-34-411 for small design capacity landfills:

- All system and/or component downtime and reasons for the shutdown (8-34-501.1)
- All emission control system downtime and reason for the shutdown (8-34-501.2)
- Continuous temperature monitoring and dates of any excesses (8-34-501.3 and 507)
- Testing performed to satisfy the requirements of this rule (8-34-501.4)
- Monthly landfill gas flow rates and excesses (8-34-501.5)
- Collection and emission control system leak testing and any excesses, action taken to correct excesses, and re-monitored concentrations (8-34-501.6 and 503)
- Annual waste acceptance rate and the current amount of waste in-place (8-34-501.7)
- Records of non-degradable waste if area is excluded from LFG collection (8-34-501.8)
- Continuous flow monitoring (8-34-501.10 and 508)

Information summarizing the monitoring activities associated with the above-listed items is provided in the following sections.

# 2.0 SITE BACKGROUND INFORMATION

The Sunnyvale Landfill is located in Sunnyvale, California and is owned and operated by the City. The 93-acre site is a closed landfill site.

The Landfill began accepting waste circa 1920. Until about 1957, most combustible wastes received were burned. In the late 1970's, the site was permitted by the State of California to operate as a sanitary landfill.

Filling operations ceased in September 1993. Closure was completed in October 1994 with an estimated 2.29 million Megagrams (Mg) of waste in place. The Landfill comprises 93 acres in four separate hills referred to as the West Hill, Recycle Hill, South Hill, and East Hill. The maximum height of the Landfill is approximately 90 feet.

# 2.1 EXISTING PERMITS AND PERMIT MODIFICATIONS

The City maintains a BAAQMD Permit to Operate (PTO) (Plant No. 5905) and a Major Facility Review (MFR)/Title V permit for the entire Landfill, the LFG collection system, the LFG flare, and the SMaRT Station. A Title V permit was initially issued on September 19, 2013. The current Title V permit was issued on January 21, 2022.

The City also maintains a BAAQMD Title V Permit (Plant No. 733) to operate the City of Sunnyvale Water Pollution Control Plant (WPCP), which includes a Power Generation Facility (PGF) that utilizes LFG. The WPCP will continue to operate under a separate Title V permit with separate Title V reporting.

LFG is currently collected from all areas of the Landfill where municipal solid waste was placed and diverted to one or both methane-fired internal combustion (IC) engine generators at the PGF or to the flare located within the flare station at the WPCP. Note that the old flare (designated by the BAAQMD as abatement device 8 (A-8) on the Title V Permit) was replaced by a new flare (A-9). Flare A-8 was permanently taken out of service on September 3, 2013. Flare A-9 began operating on September 24, 2013, with a subsequent, initial source test performed on October 2, 2013.

# 2.2 EXISTING LANDFILL GAS COLLECTION AND CONTROL SYSTEM

The GCCS for the site was installed and became operational in 1987. Several extraction wells were added to the collection system when the final cover was constructed in 1994, and two additional wells were added in 2000.

The gas collection system consists of a header piping network, vertical extraction wells, and horizontal gas collectors. The emission control system (ECS) consists of one enclosed flare and the PGF with two methane-fired engine generators. Note that Digester Gas (Digas), in addition to LFG, is burned in the enclosed flare. Both Digas and air-blended natural gas (ABNG), in addition to LFG, are used to fuel the PGF. The existing GCCS provides LFG control throughout the entire area of the Landfill property where municipal solid waste was placed. Additional details can be found in the GCCS Design Plan, which was prepared for the site by SCS in 2001 and submitted to the BAAQMD. A diagram of the GCCS displaying system component locations is shown in the site plan(s) provided in **Appendix A**.

On July 7, 2022, modifications to the LFG Collection Header (East Side of Landfill) were made. The Sunnyvale Water Pollution Control Plant (WPCP) rehabilitation project included installation of a 72-inch diameter storm pipeline. This storm pipeline intersected with a section of the LFG 8-inch pipeline in Carl Rd., just north of the landfill's South Hill. The 8-inch LFG header was re-routed over the 72-inch storm pipeline using 45-degree couplings. A j-trap was installed in-line with the landfill gas header, to the south of 72-inch storm pipeline, to minimize LFG condensate buildup. A permanent design for the re-route of the LFG header was submitted to the WPCP contractor and the final design was installed on March 23, 2023.

# 3.0 MONITORING AND RECORDS

# 3.1 CONTINUOUSLY MONITORED PARAMETERS

To comply with this regulation, the Landfill owner/operator is required to maintain full-time operation of the LFG collection system, control devices, and individual extraction wells. Operation is documented by continuously monitoring flow to the flare as well as flare combustion temperature, or flow to the PGF. Downtime for any of these components must be reported in the Rule 8-34 Semi-Annual Report. This information is summarized below and in the attached tables. Records of continuously monitored parameters are available for inspection at the site.

#### 3.1.1 Gas Extraction System Downtime

During this reporting period, the gas extraction/collection system shut down on seven (7) occasions for a total elapsed time of 8.78 hours.

The WPCP, on which the PGF, the LFG Flare, and the blowers are located, is undergoing major construction and rehabilitation. The WPCP began operation in 1956, and the current subject reconstruction/rehabilitation project is anticipated to take 20 years to complete. This work is taking place on the same site as the existing WPCP that must remain operational during the construction/rehabilitation. Portions of the WPCP's electrical system, which includes the electrical components of the gas collection and control system (that provide electricity to the blowers, the LFG and the PGF, as well as the associated instrumentation, meters, etc.), occasionally require shutdowns to upgrade equipment, add new lines, or to incorporate new lines for new and improved processes/equipment.

Five (5) of the seven (7) downtime events involved the shutdown of the entire GCCS and was deemed by the City to meet the Rule 8-34-113 exemption criteria for downtime due to maintenance and inspection. These downtime events, totaling 6.98 hours, are shown in **Table 1** (attached), which also summarizes all Rule 8-34-113 downtime for the calendar year 2023. Downtime for inspection and maintenance purposes totaled 14.57 hours for 2023.

In addition, it is the City's understanding that the remaining two (2) downtime events, which were unplanned shutdowns, did not meet the District's Rule 8-34-113 exemption criteria, and the City submitted Reportable Compliance Activity (RCA) Notification Forms, requesting Breakdown relief for these occurrences.

The first event occurred on September 14, 2023 resulting in 1.25 hours of downtime. BAAQMD assigned Breakdown Relief ID 08U74 for this event. The second event also occurred on September 14, 2023 resulting in 0.55 hours of downtime. The BAAQMD assigned Breakdown Relief ID 08U081

for this event. City Staff submitted RCA notification forms as well as the 10-day/30-day Title V deviation reports for these events, which are provided as **Appendix E**. No NOV's were issued for this reporting period.

In the event of a shutdown of an ECS component due to unforeseen circumstances, the City is made aware of downtime events because personnel are automatically notified of the downtime via an alarm system. In addition, because the gas extraction system and ECS are designed to work in concert, downtime for the extraction system results in downtime for the flare and the PGF. However, if sufficient Digas and ABNG were available to maintain PGF operation, the operator could choose to run the PGF rather than purchase electricity.

#### 3.1.2 Emission Control System Downtime

Because of the redundancies built into the GCCS at the Landfill (e.g., multiple control devices), it is unusual for both of the methane-fired engine generators and the enclosed flare to be unable to operate at the same time during an unplanned event. During this reporting period, total GCCS downtime was 8.78 hours. Five (5) downtime events totaling 6.98 hours were allowable under Rule 8-34-113 and two (2) downtime events totaling 1.80 hours were not allowed, as mentioned above. Total GCCS downtime allowable under Rule 8-34-113 for the calendar year 2023 was approximately 14.57 hours, well within the Rule limit of 240 hours per calendar year.

The City is generally aware of each flare downtime event, either because it was a scheduled maintenance event or, if it was an unplanned event, because facility personnel are automatically notified via an alarm system of such a shutdown. For unplanned events, facility personnel promptly performed inspection and corrective action as needed to avoid excess emissions. During all GCCS startup, shutdown, and malfunction events, City staff and/or their contractors or consultants inspected the system and conducted the necessary activities (e.g., inspections, maintenance, or repairs) to bring the GCCS back on-line, and maintain compliance.

Please note that because the LFG extraction system and control devices are designed to work in concert, downtime for the entire control system also results in downtime for the extraction system. When the LFG flare goes off-line, an automatic valve is actuated which interrupts LFG and Digas flow to the flare, and an electric relay is triggered, which turns off the extraction system (i.e., LFG blower). When the flare is off-line and both generator sets (gensets) are also not operating, there is no free venting of gas because the gas is constrained by the inoperative gensets and has no alternative outlet. In such circumstances, the blower would be shut down manually. During this reporting period, there were no instances where LFG flow passed through the control system uncontrolled (i.e., free venting). Additionally, there is no bypass that could allow the collected LFG stream to be diverted from the control devices.

#### 3.1.3 Individual Well Downtime

Although the entire GCCS may not go off-line, individual extraction wells are occasionally taken off-line for inspection, maintenance, repair, and other unforeseen circumstances. These are generally planned events, although such events can occur without notice.

A summary of the instances of individual well downtime during the reporting period is provided in **Table 2**, including the date, well identification number, reason for the downtime, a description of what was done to bring the well back on-line, and the total elapsed downtime. At no time during the reporting period were more than five (5) wells offline concurrently, or a single well for more than 24

hours. The well identification numbers are listed on the drawing provided in **Appendix A**. Each of these instances were allowed under Section 117 of Rule 8-34.

# 3.1.4 Flow Meter and Temperature Gauge Downtime

The continuous operation of the LFG collection system and control devices is measured through the continuous measurement of LFG flow. Operation of the LFG flare in compliance with the PTO is monitored via flare temperature. As required by Rule 8-34, the GCCS at the Landfill is equipped with flow measuring devices and a temperature gauge, which provide continuous readout displays, as well as electronic data records from a video-graphic recorder. Additionally, flow and temperature data are recorded on the optical coupling device, "OPTO", which periodically backs up its data. The OPTO data allows retrieval of information to fill in any gaps in the video-graphic recorders' records. Review of the data from the OPTO and the video-graphic recorder indicates there were eight (8) operating periods when data were not recorded during the reporting period.

Per the requirements of BAAQMD Rule 8-34 Section 508, flow data were recorded every 15 minutes with the exception of eight (8) periods of operation during this reporting period. There were no periods which exceeded 24 hours, therefore no RCA's were submitted. A summary of the instances when data were not recorded during the reporting period is provided in **Table 3**, including the date, reason, and total elapsed time.

#### 3.2 COMPONENT LEAK QUARTERLY MONITORING

#### 3.2.1 Third Quarter 2023 Monitoring

The Landfill GCCS components and the PGF were both tested on September 26 and 29, 2023 for any leaks with a methane concentration of greater than 500 parts per million by volume (ppmv) as required by the California Air Resources Board (CARB) AB 32 Landfill Methane Rule (LMR), or greater than 1,000 ppmv as required by BAAQMD Rule 8-34-503. Testing was performed by SCS Field Services (SCSFS) using a Flame Ionization Detector (FID), which was calibrated on the same day. Calibration records are available upon request.

During the monitoring events, no leaks in excess of 500 ppmv as methane were detected in the Landfill GCCS components. Leaks were detected at the PGF valve and blower on September 26, 2023 showing 3,000 and 2,657 ppm, respectively. Upon completion of repairs by site personnel, SCSFS performed a recheck of the blower on September 29, 2023, with the results indicating a methane concentration of 425 ppm. Therefore, compliance was demonstrated. SCSFS results of monitoring for Third Quarter 2023 can be found in **Appendix B**.

#### 3.2.2 Fourth Quarter 2023 Monitoring

The Landfill GCCS components and the PGF were both tested on December 18 and 29, 2023 for any leaks with a methane concentration of greater than 500 ppmv as required by the CARB AB-32 LMR, or greater than 1,000 ppmv as required by BAAQMD Rule 8-34-503. Testing was performed by SCSFS using an FID, which was calibrated on the same day. Calibration records are available upon request.

During the monitoring events, no component leaks in excess of 500 ppmv were detected in the Landfill GCCS components. Note that during monitoring, the PGF #2 engine results were 1000 ppm. SCS understands that WPCP staff performed necessary repairs on December 19, 2023. Upon

retesting of this location by SCS on December 29, 2023, the PGF engine returned to compliance with the results of 29.9 ppm. Therefore, the next required quarterly testing for all components is due by the end of March 2024. SCSFS results of monitoring for Fourth Quarter 2023 can be found in **Appendix B**.

#### 3.3 CONTROL EFFICIENCY

The LFG flare (A-9) is required, under the provisions of the Initial Title V Permit, to be tested annually to demonstrate compliance with the control efficiency standard of greater than 98 percent (%) non-methane organic compound (NMOC) destruction efficiency or an outlet concentration of less than 30 ppmv of NMOCs as methane at 3 % oxygen (for flares) as required by BAAQMD Rule 8-34-301.4, 8-34-412 and 8-34-413. Initial testing of this flare was performed by Blue Sky Environmental, Inc. on October 2, 2013, followed by two annual flare testing events conducted in October 2014 and October 2015. Per Condition 11586 Part 12 of the City's PTO, after three consecutive annual source tests demonstrate compliance, the testing frequency can be reduced to once every three years. The most recent source test was conducted on September 20, 2021. The Source Test report dated November 9, 2021, indicated the flare was in compliance. A copy of the full report has been submitted to the District. The next LFG flare source testing is required by September 2024.

#### 3.4 WELLHEAD AND SURFACE EMISSIONS MONITORING

There was no wellhead monitoring activity pursuant to Rule 8-34 performed at the site because the monitoring is not required per the limited exemption for small design capacity landfills (8-34-120). However, monthly wellhead monitoring for pressure is performed under the AB 32 LMR, and will be reported in a separate annual report to the BAAQMD, which has been delegated by the CARB to implement the LMR. Similarly, landfill surface emissions monitoring (SEM) is not required by Rule 8-34, however, SEM is performed annually at the subject site, as required under the AB 32 LMR.

#### 3.5 COVER INTEGRITY MONITORING

The integrity of the landfill cover is monitored on a monthly basis by the City in accordance with BAAQMD Rule 8-34-510 using procedures specified in the GCCS Design Plan (SCS, 2001). During the reporting period, cover integrity monitoring was conducted on July 27, August 31, September 28, October 30, November 30, and December 21, 2023. Cover integrity observations during these monthly monitoring events generally indicated the landfill surface was in good condition. No cracks or subsidence were noted.

# 3.6 MONTHLY LANDFILL GAS FLOW RATES

The Sunnyvale Landfill is not subject to Rule 8-34-404 because the Landfill does not operate less than continuously. Therefore, monthly flow data are not required to be reported.

#### 3.7 ANNUAL WASTE ACCEPTANCE RATE AND REFUSE IN PLACE

The Sunnyvale Landfill is a closed landfill that has not accepted waste since 1993. The City only has records of quantities of waste that the facility received since 1976. Earlier acceptance rates for the Landfill are estimated since no records are available to describe any previous waste disposal operations. The site has an estimated 2.29 million Mg of refuse in place.

# 3.7.1 Non-Degradable Waste Areas

A non-degradable monofill area exists at the Landfill between the East and South Hills. This Biosolids Monofill is not within the area covered by the GCCS and is not designated on the GCCS drawing. There was one (1) deposit made to the Biosolids Monofill during the reporting period. Approximately 35 cubic yards of sediment were removed during dredging and placed in the Biosolids Monofill. Records of materials placed in this area are maintained by the City.

# SECTION II. TITLE V SEMI-ANNUAL REPORT

As specified in 40 Code of Federal Regulations (CFR) Part 70, reports of any required monitoring must be submitted at least every 6 months. All instances of deviations from permit requirements for the semi-annual reporting period, specified in the Landfill's Initial Title V Permit as January 1 through June 30 and July 1 through December 31, must be clearly identified in each report. This Title V Report covers the July 1, 2023 through December 31, 2023 reporting period.

This report has been prepared based on Part VII (Applicable Limits and Compliance Monitoring Requirements) of the Landfill's MFR Permit. The report includes a certification by a responsible official, consistent with §70.5(d).

The full Title V Semi-Annual Report, including certification by a responsible official, is provided as **Appendix C**.

Any RCA Notification Forms, follow-up letters, response letters for Notices of Violation (NOVs) issued by BAAQMD, or Title V Deviation Reports submitted to BAAQMD during this reporting period are provided for reference in **Appendix E**.

# SECTION III. ANNUAL TITLE V COMPLIANCE CERTIFICATION

A Title V Annual Compliance Certification has been prepared for the annual period specified in the Title V permit. The annual certification period for this report extends from January 1, 2023 to December 31, 2023.

As specified in 40 CFR Part 70, the compliance certification shall include all of the following:

- The identification of each federally-enforceable term or condition of the permit that is the basis of the certification;
- The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period; and
- The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent.

The full Compliance Certification is provided as **Appendix D**.

Any RCA Notification Forms, follow-up letters, response letters for Notices of Violation (NOVs) issued by BAAQMD, or Title V Deviation Reports submitted to BAAQMD during this reporting period are provided for reference in **Appendix E**.

# Tables

City of Sunnyvale <u>www.scsengineers.com</u>

#### Table 1

# Log of Gas Collection and Control System (GCCS) Downtime OR Emission Control System (ECS) Downtime

(Total Allowed Time for either GCCS or ECS downtime is 240 hours per calendar year)

#### 2023 Reporting Period (January 1, 2023 - December 31, 2023)

Date Initial Cause of Downtime*  CCS ECS Other		owntime*	Reason for	Time System	Time System	Duration	Balance	
		Other	Downtime**	Went Offline	Came Online	Offline	of Hours***	
								240.00
3/24/23	Х			East Hill condensate trap modification/relocation.	06:55	12:45	5.83	234.17
3/31/23	Х			Pumping condensate from CT-7E.	09:37	10:58	1.35	232.82
6/10/23			Х	PG&E shutdown - flare connected to portable generator power	08:42	08:53	0.18	232.64
6/28/23			Х	Maint SCADA update	09:55	10:10	0.25	232.46
6/10/23			Х	PG&E shutdown - flare returned to normal power generation (disconnect generator)	10:28	10:31	0.05	232.41
8/5/23			Х	PG&E shutdown switch LFGF pwr to 1 MW gen	08:52	09:13	0.35	232.06
8/5/23			Х	PG&E shutdown switched from 1 MW to 52-6	18:19	18:27	0.13	231.93
9/14/2023****			Х	Blown fuse and no power to UPS units	9:05	10:20	1.25	230.68
9/14/2023****		X Blown fuse and no power to UPS units		15:53	17:26	0.55	230.13	
9/22/23	Х		LFG Flare Inspection		12:48	13:19	0.52	229.61
10/11/23	Х			LFG Field Condensate System repairs	08:22	11:40	3.30	226.31
11/14/23	Х			LFGF UPS Replacement	07:54	10:35	2.68	223.63

Total Time Off-Line 16

16.37

#### Notes:

- \* Place a checkmark in the box under the system that was the initial cause of the shutdown.

  (e.g. A break in the GCCS system, a problem with the Flare or Gensets, and a plant power outage would result in the "GCCS", "ECS", and "other" box being checked, respectively.)
- \*\* Provide a brief explanation of the cause of the downtime. (eg: There was a break in a lfg line; while the engines were undergoing maintenance the flare malfunctioned; and a plant-wide power outage occurred.)
- \*\*\* Please convert minutes into hundredths of an hour (e.g. 5 hrs, 13 min would be recorded as 5.22 hours) and subtract from prior line's balance of hours.
- \*\*\*\* Downtime not covered under the Section 113 240 hour exemption.RCA submitted and provided in Appendix E.

# Table 2

# Downtime of Individual Gas Collection Wells Reporting Period - July 1, 2023 through December 31, 2023

					Time
Well No.	Date Off-Line	Reason for Improvement	Corrective Action	Date On-Line	Offline
EW-17W	10/31/23	Damaged flex hose.	Replaced flex hose.	10/31/23	0.92
EW-19W	11/8/23	Damaged flex hose.	Replaced flex hose.	11/8/23	0.45

#### Table 3

# Summary of Continuouos Chart Recorder Data Gaps

## Parametric Monitors January 1, 2023 through December 31, 2023

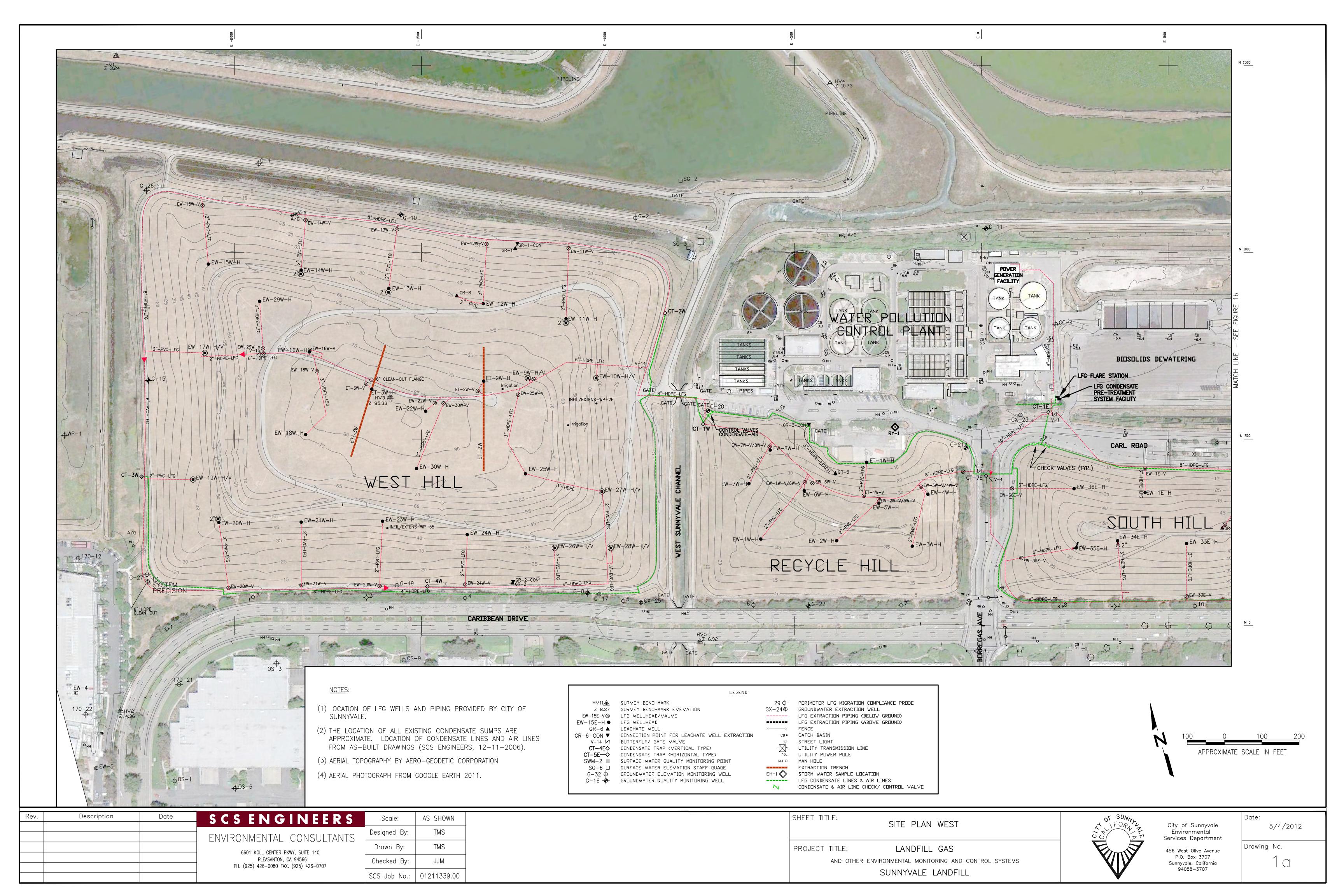
Date	Gaps - Continuous Chart Recorder Data	Notes
	(Under 24 Hours)	
	January 1, 2023 through June 30, 2023	
2/1/2023	No landfill gas flow data from approximately 2:05 to 3:08 (~1.05 hours).	
	Flow meter not recording.	
	July 1, 2023 through December 31, 2023	
10/11/2023	LFG flare flow meter not recording flare flow correctly. Flare run	1
	approximately 11:45 to 13:20 (1.58 hours).	
10/16/2023	LFG flare flow meter not recording flare flow correctly. Flare run	1
	approximately 5:10 to 16:50 (11.7 hours).	
10/21/2023	LFG flare flow meter not recording flare flow correctly. Flare run	1
10/21/2020	approximately 8:10 to 1:20 on 10/22/23 (17.2 hours).	
11/3/2023	LFG flare flow meter not recording flare flow correctly. Flare run	1
	approximately 4:30 to 18:50 (14.3 hours).	
11/14/2023	LFG flare flow meter not recording flare flow correctly. Flare run	1
	approximately 10:40 to 11:20 (0.67 hours).	
11/29/2023	LFG flare flow meter not recording flare flow correctly. Flare run	1
11/20/2020	approximately 5:30 to 17:25 (11.91 hours).	•
11/29/2023	LFG flow meter not recording flare flow correctly. Flare run	1
11/23/2023	approximately 17:50 to 11:15 on 11/30/23 (17.41 hours).	1
40/44/0000		
12/14/2023	LFG flow meter not recording flare flow correctly. Flare run	1
	approximately 11:00 to 13:40 (2.67 hours).	

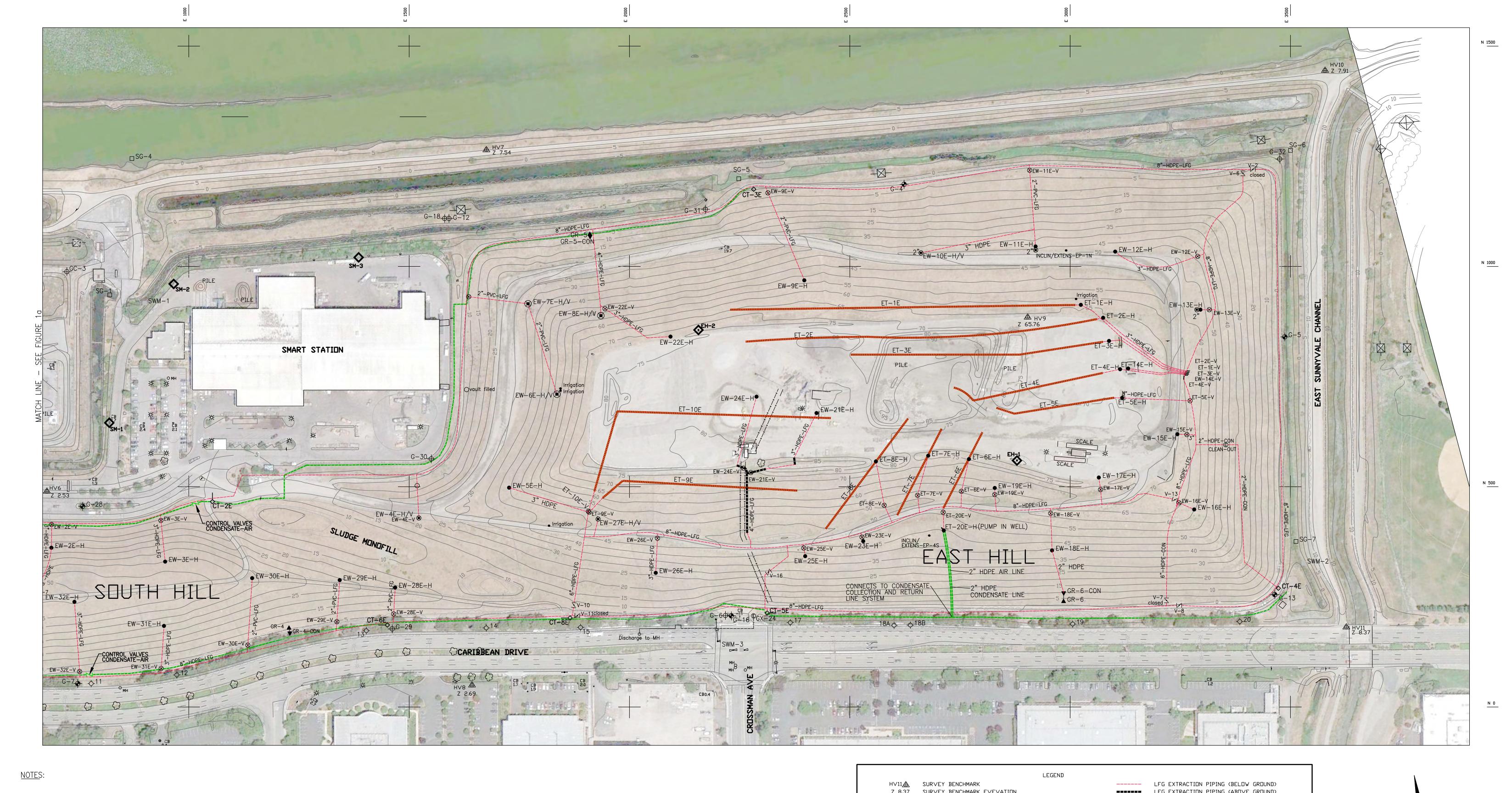
#### Notes:

1. LFG flare flow meter replaced on 10/11/23. Parameters on meter caused the meter to record incorrectly. Flare flow meter recording is pinged at 400 scf. All other gas flow readings and flare temperature are correct. A work order submitted to correct meter.

# Appendix A - GCCS Drawings

City of Sunnyvale <u>www.scsengineers.com</u>



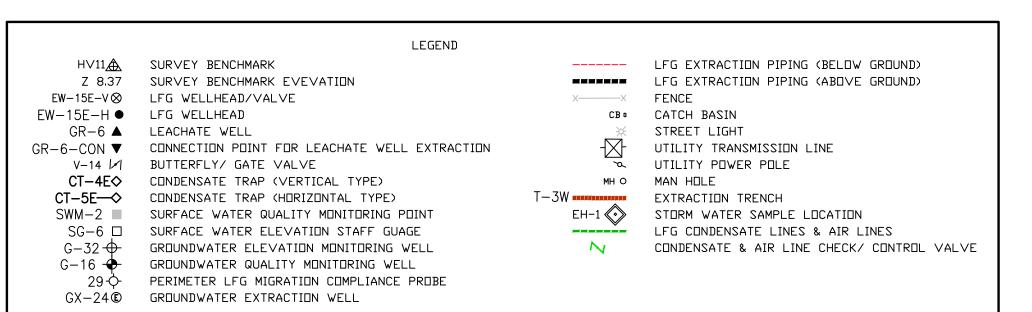


(1) LOCATION OF LFG WELLS AND PIPING PROVIDED BY CITY OF SUNNYVALE.

(2) THE LOCATION OF ALL EXISTING CONDENSATE SUMPS ARE APPROXIMATE. LOCATION OF CONDENSATE LINES AND AIR LINES FROM AS-BUILT DRAWINGS (SCS ENGINEERS, 12-11-2006).

(3) AERIAL TOPOGRAPHY BY AERO-GEODETIC CORPORATION

(4) AERIAL PHOTOGRAPH FROM GOOGLE EARTH 2011.



)	0	100	200
	APPROXIMATE	SCALE IN FEE	<u>—</u> Г

rev.	Description	Date	SCSENGINEERS	Scale:	AS SHOWN
			ENVIRONMENTAL CONSULTANTS	Designed By:	TMS
			6601 KOLL CENTER PKWY, SUITE 140	Drawn By:	TMS
			PLEASANTON, CA 94566 PH. (925) 426–0080 FAX. (925) 426–0707	Checked By:	JJM
				SCS Job No.:	01211339.00

AS SHOWN

SHEET TITLE: SITE PLAN EAST

PROJECT TITLE: LANDFILL GAS

AND OTHER ENVIRONMENTAL MONITORING AND CONTROL SYSTEMS SUNNYVALE LANDFILL



City of Sunnyvale Énvironmental Services Department 456 West Olive Avenue

P.O. Box 3707

Sunnyvale, California 94088-3707

Date: 5/4/2012

Drawing No. 1 b Appendix B – SCSFS Quarterly LFG Collection System Component Leak/Emissions Testing and Component Emissions Monitoring Results

City of Sunnyvale <u>www.scsengineers.com</u>

# SCS FIELD SERVICES

October 12, 2023 File No. 07218240.00

Mr. William Theyskens City of Sunnyvale Environmental Services Department 456 West Olive Avenue Post Office Box 3707 Sunnyvale, California 94086

Subject: Third Quarter 2023 Landfill Gas (LFG) Collection System Component Leak/Emissions

Testing at the Sunnyvale Landfill, Sunnyvale, California

Dear Mr. Theyskens:

This letter provides results of the landfill gas collection system component leak/emissions monitoring for the third quarter of 2023 (July through September) as required by the Landfill Methane Rule (LMR) and Bay Area Air Quality Management District (BAAQMD) Regulation 8, Rule 34. All work was performed by SCS Field Services (SCS) in accordance with City approval and our approved Work Scope.

# **CONCLUSIONS AND RECOMMENDATIONS**

On September 26, 2023, LFG component (e.g., well/valve vaults) leak/emissions monitoring showed no exceedances of the LMR limit of 500 ppmv or the BAAQMD Regulation 8, Rule 34 threshold of 1,000 parts per million (ppm), respectively. Therefore, no additional testing is recommended until the fourth quarter 2023.

#### BACKGROUND

The Sunnyvale Landfill site is an inactive organic refuse disposal site. By way of background, organic materials buried in a landfill decompose anaerobically (in the absence of oxygen) producing a combustible gas, which contains approximately 50 to 60 percent methane, 40 to 50 percent carbon dioxide, and trace amounts of various other gases, some of which are odorous. The Sunnyvale property contains a system to control the combustible gases generated in the landfill.

The gases produced in the landfill will either vent vertically to the atmosphere or migrate horizontally through subsurface soil to locations on adjacent properties. If the soil surrounding a landfill consists of permeable materials, there is a greater likelihood that the LFG will migrate to offsite locations. If the methane gas component of LFG is allowed to accumulate in a confined area (i.e., utility lines, irrigation valve boxes, vaults, basements, wall spaces, etc.) and is exposed to an ignition source, it can be explosive at concentrations between 5 and 15 percent by volume.



## LFG COMPONENT EMISSIONS MONITORING

On September 26, 2023, LFG component leak/emissions monitoring was performed at the subject site. The intent of the monitoring was to identity any specific locations (e.g., well/valve vaults and components) with organic compound concentrations exceeding the LMR threshold of 500 ppmv or BAAQMD, Regulation 8, Rule 34 threshold limit value of 1,000 ppmv measured as methane, respectively.

# TESTING INSTRUMENTATION/CALIBRATION

Instruments used to perform the LFG component leak/emissions testing consisted of the following:

Thermo Scientific TVA-2020 portable Flame Ionization Detector (FID). This instrument
measures methane in air over a range of 1 to 50,000 ppmv. The FID meets BAAQMD
requirements and was calibrated in accordance with manufacturer specifications and
EPA Method 21.

# LFG COMPONENT EMISSIONS MONITORING PROCEDURES

LFG component leak/emissions monitoring was conducted in accordance with BAAQMD Regulation 8, Rule 34 and the LMR. Monitoring was performed with the FID inlet held within 1 to 2 centimeters above all accessible LFG system components including extraction well and control valve vault boxes and flanges, etc.

## **TESTING RESULTS**

On September 26, 2023, quarterly LFG component/leak emissions testing of the collection system valve and wellhead boxes and flare station was performed as required by the BAAQMD. No methane gas concentrations in excess of the LMR limit of 500 ppmv or Rule 8-34 limit of 1000 ppmv limit were detected during this testing. See attached table for monitoring results. Therefore, the next required quarterly testing is due by the end of December 2023.

#### STANDARD PROVISIONS

This report addresses conditions of the subject site on the test date only. Accordingly, we assume no responsibility for any changes that may occur subsequent to our testing which could affect the emissions at the subject site.

Mr. William Theyskens October 12, 2023 Page 3

Should you have any questions, do not hesitate to contact either of the undersigned.

Sincerely,

Rebecca L. Lucero Project Coordinator SCS Field Services

cc: Silviana Ruiz

Cameron Kostigen Mumper

Relucea & Lucero

Stephen Harquail Project Manager SCS Field Services

Technician: Don Gibson Temperature: 62

Date: 9-26-23 Barometric Pressure: 29
Weather: Sunny Wind Speed/Direction: W6

ppm = parts per million NR Instrument: TVA-2020

= Not Required Calibration: zero-500

#### **East Hill Horizontals**

Monitoring Location (ET's)	Control Valve Vault (ppm)	Wellhead Vault (ppm)	Retesting Results
1E	2.3	2.0	
2E	2.2	2.0	
3E	2.2	2.0	
4E	2.2	2.0	
5E	2.3	2.0	
6E	2.3	2.0	
7E	2.0	2.0	
8E	2.2	2.1	
9E	2.1	2.0	
10E	2.2	2.2	

62

Technician: Don Gibson Temperature:

Date: 9-26-23 Barometric Pressure: 29
Weather: Sunny Wind Speed/Direction: W6

ppm = parts per million Instrument: TVA-2020 NR = Not Required Calibration: zero-500

East Hill Verticals

Monitoring Location (EW's)	Control Valve Vault (ppm)	Wellhead Vault (ppm)	Retesting Results
1E	2.1	2.0	
2E	2.2	2.0	
3E	2.0	2.0	
4E	2.1	2.0	
5E	2.2	2.0	
6E	2.3	2.0	
7E	2.2	2.0	
8E	2.3	2.0	
9E	2.2	2.0	
10E	2.0	2.0	
11E	2.2	2.0	
12E	2.0	2.0	
13E	2.0	2.0	
14E	2.0	2.0	
15E	2.1	2.0	
16E	2.3	2.0	
17E	2.2	2.0	
18E	2.2	2.0	
19E	2.2	2.0	
20E	2.1	2.0	
21E	2.0	2.0	
22E	2.0	2.0	

Technician: Don Gibson Temperature: 62

Date: 9-26-23 Barometric Pressure: 29
Weather: Suny Wind Speed/Direction: W6

ppm = parts per million Instrument: TVA-2020
NR = Not Required Calibration: zero-500

## East Hill Verticals (continued)

Monitoring Location (EW's)	Control Valve Vault (ppm)	Wellhead Vault (ppm)	Retesting Results
23E	2.2	2.0	
24E	2.0	2.2	
25E	2.1	2.2	
26E	2.1	2.0	
27E	2.2	2.1	
28E	2.0	2.2	
29E	2.1	2.2	
30E	2.0	2.1	
31E	2.0	2.2	
32E	2.2	2.0	
33E	2.1	2.0	
34E	2.0	2.0	
35E	2.2	2.0	
36E	2.0	2.0	

## **West Hill Horizontals**

	Monitoring Location (ET's)	Control Valve Vault (ppm)	Wellhead Vault (ppm)	Retesting Results
ſ	1W	2.2	1.9	
Ī	2W	2.0	1.3	
Ī	3W	2.0	1.7	



Technician: Don Gibson Temperature: 62

Date: 9-26-23 Barometric Pressure: 29
Weather: Sunny Wind Speed/Direction: W6

ppm = parts per million Instrument: TVA-2020 NR = Not Required Calibration: zero-500

#### **West Hill Verticals**

Monitoring Location (EW's)	Control Valve Vault (ppm)	Wellhead Vault (ppm)	Retesting Results
1W	2.3	1.7	
2W	2.2	1.4	
3W	2.0	1.7	
4W	2.0	1.5	
5W	2.0	1.1	
6W	2.0	2.2	
7W	2.0	2.1	
8W	2.2	1.5	
9W	2.2	1.2	
10W	2.1	1.2	
11W	2.2	1.7	
12W	2.1	1.8	
13W	2.0	1.3	
14W	2.1	1.3	
15W	2.0	1.6	
16W	2.2	1.9	
17W	2.4	2.0	
18W	2.1	2.1	
19W	2.1	2.3	
20W	2.2	2.0	
21W	2.1	1.9	



Technician: Don Gibson Temperature: 62

Date: 9-26-23 Barometric Pressure: 29 Weather: Sunny Wind Speed/Direction: W6

ppm = parts per million Instrument: TVA-2020

NR = Not Required Calibration: zero-500

## **West Hill Verticals (continued)**

Monitoring Location (EW's)	Control Valve Vault (ppm)	Wellhead Vault (ppm)	Retesting Results
22W	2.2	1.2	
23W	2.1	1.2	
24W	2.0	1.3	
25W	2.2	2.0	
26W	2.2	1.0	
27W	2.1	1.8	
28W	2.0	1.6	
29W	2.2	1.3	
30W	2.2	1.6	

# SCS FIELD SERVICES

October 12, 2023 File No. 07218240.00

Mr. Cameron Kostigen Mumper City of Sunnyvale Post Office Box 3707 Sunnyvale, California 94086

Subject: Third Quarter 2023 Power Generation Facility (PGF) and Landfill Gas (LFG) Flare

System Component Leak/Emissions Testing at the Sunnyvale Landfill, Sunnyvale,

California

Dear Mr. Kostigen Mumper:

This letter provides results of the third quarter 2023 PGF and LFG flare system component leak/emissions monitoring as required by Bay Area Air Quality Management District (BAAQMD) Regulation 8, Rule 34 and the Landfill Methane Rule (LMR). All work was performed by SCS Field Services (SCS) in accordance with City approved Purchase Order.

#### CONCLUSIONS AND RECOMMENDATIONS

On September 26, 2023, PGF and LFG flare positive pressure component (e.g., leak/emissions) monitoring showed no exceedances of BAAQMD Regulation 8, Rule 34 or LMR threshold of 1000 and 500 parts per million (ppm), respectively with the exception of the PGF valve and blower (3000 and 2657 ppm, respectively) with the blower returning to compliance (112 ppm) upon completion of repairs by site personnel. On September 29, 2023, SCS, upon completion of repairs by site personnel, performed a recheck of the blower with the results indicating 425 ppm. Therefore, no additional testing is recommended until the fourth quarter 2023.

#### **BACKGROUND**

The Sunnyvale Landfill site is an inactive organic refuse disposal site. By way of background, organic materials buried in a landfill decompose anaerobically (in the absence of oxygen) producing a combustible gas, which contains approximately 50 to 60 percent methane, 40 to 50 percent carbon dioxide, and trace amounts of various other gases, some of which are odorous. The Sunnyvale property contains a system to control the combustible gases generated in the landfill.

The gases produced in the landfill will either vent vertically to the atmosphere or migrate horizontally through subsurface soil to locations on adjacent properties. If the soil surrounding a landfill consists of permeable materials, there is a greater likelihood that the LFG will migrate to offsite locations. If the methane gas component of LFG is allowed to accumulate in a confined area (i.e., utility lines, irrigation valve boxes, vaults, basements, wall spaces, etc.) and is exposed to an ignition source, it can be explosive at concentrations between 5 and 15 percent by volume. At higher concentrations, methane gas is flammable. However, the presence of methane gas in site soil does not mean there is an immediate threat of explosion because flames cannot typically propagate through soil.



## LFG COMPONENT EMISSIONS MONITORING

On September 26 and 29, 2023, PGF and Flare landfill gas component leak/emissions monitoring was performed at the subject site. The intent of the monitoring was to identity any specific locations at the PGF with organic compound concentrations exceeding BAAQMD, Regulation 8, Rule 34 and LMR threshold limit value of 1000 ppmv or 500 ppmv, respectively measured as methane.

#### TESTING INSTRUMENTATION/CALIBRATION

Instruments used to perform the LFG component leak/emissions testing consisted of the following:

 Thermo-Scientific TVA-2020 (TVA). This instrument measures methane in air over a range of 1 to 50,000 ppmv. The TVA-2020 meets BAAQMD requirements and was calibrated in accordance with manufacturer specifications and EPA Method 21.

# LFG COMPONENT EMISSIONS MONITORING PROCEDURES

LFG component leak/emissions monitoring was conducted in accordance with BAAQMD Regulation 8, Rule 34 and the LMR. Monitoring was performed with the TVA-2020 inlet held within 1 to 2 centimeters above all/accessible PGF system components under positive pressure including valves, flanges, blower seals, etc.

### **TESTING RESULTS**

On September 26, 2023, quarterly LFG component/leak emissions testing of the PGF and LFG Flare Station were performed as required by the BAAQMD (see attached data table) with the exception of the PGF valve and blower (3000 and 2657 ppm, respectively) with the blower returning to compliance (112 ppm) upon completion of repairs by site personnel. On September 29, 2023, SCS, upon completion of repairs by site personnel, performed a recheck of the blower with the results indicating 425 ppm. Therefore, the next required quarterly testing for all components is due by the end of December 2023.

#### STANDARD PROVISIONS

This report addresses conditions of the subject site on the test date only. Accordingly, we assume no responsibility for any changes that may occur subsequent to our testing which could affect the emissions at the subject site.

Mr. Cameron Kostigen Mumper October 12, 2023 Page 3

Relucea & Lucero

Should you have any questions, do not hesitate to contact either of the undersigned.

Sincerely,

Rebecca L. Lucero Project Coordinator SCS Field Services

cc: William Theyskens Melody Tovar Bryan Berdeen Silviana Ruiz Stephen Harquail Project Manager SCS Field Services

Technician: Don Gibson
Date: 09-26, 29-23
Weather: cloudy

ppm = parts per million
NR = Not Required

Temperature: 77
Barometric Pressure: 30
Wind Speed/Direction: NW6
Instrument: TVA-2020
Calibration: 09-26-23

#### Flare Station

Monitoring Location	Testing Results (ppm)	Retesting Results (ppm)	Comments
Blowers	2		
Valves	2		
Piping	1		
Flanges	1		

## **Power Generation Facility**

Monitoring Location	Testing Results (ppm)	Retesting Results (ppm)	Comments
Compressor	2.3		
Valves	3000	112.0	Repair performed by site personnel; retesting done on same day
Piping	5.6		
Flanges	8.2		
Blowers	2657	425.0	Recheck done on 9/29/23
Engines	2.2		

# SCS FIELD SERVICES

December 20, 2023 File No. 07218240.00

Ms. Sunanda Katragadda City of Sunnyvale Environmental Services Department 456 West Olive Avenue Post Office Box 3707 Sunnyvale, California 94086

Subject: Fourth Quarter 2023 Landfill Gas (LFG) Collection System Component

Leak/Emissions Testing at the Sunnyvale Landfill, Sunnyvale, California

Dear Ms. Katragadda:

This letter provides results of the landfill gas collection system component leak/emissions monitoring for the fourth quarter of 2023 (October through December) as required by the Landfill Methane Rule (LMR) and Bay Area Air Quality Management District (BAAQMD) Regulation 8, Rule 34. All work was performed by SCS Field Services (SCS) in accordance with City approval and our approved Work Scope.

# **CONCLUSIONS AND RECOMMENDATIONS**

On December 18, 2023, LFG component (e.g., well/valve vaults) leak/emissions monitoring showed no exceedances of the LMR limit of 500 ppmv or the BAAQMD Regulation 8, Rule 34 threshold of 1,000 parts per million (ppm), respectively. Therefore, no additional testing is recommended until the first quarter 2024.

#### BACKGROUND

The Sunnyvale Landfill site is an inactive organic refuse disposal site. By way of background, organic materials buried in a landfill decompose anaerobically (in the absence of oxygen) producing a combustible gas, which contains approximately 50 to 60 percent methane, 40 to 50 percent carbon dioxide, and trace amounts of various other gases, some of which are odorous. The Sunnyvale property contains a system to control the combustible gases generated in the landfill.

The gases produced in the landfill will either vent vertically to the atmosphere or migrate horizontally through subsurface soil to locations on adjacent properties. If the soil surrounding a landfill consists of permeable materials, there is a greater likelihood that the LFG will migrate to offsite locations. If the methane gas component of LFG is allowed to accumulate in a confined area (i.e., utility lines, irrigation valve boxes, vaults, basements, wall spaces, etc.) and is exposed to an ignition source, it can be explosive at concentrations between 5 and 15 percent by volume.



## LFG COMPONENT EMISSIONS MONITORING

On December 18, 2023, LFG component leak/emissions monitoring was performed at the subject site. The intent of the monitoring was to identity any specific locations (e.g., well/valve vaults and components) with organic compound concentrations exceeding the LMR threshold of 500 ppmv or BAAQMD, Regulation 8, Rule 34 threshold limit value of 1,000 ppmv measured as methane, respectively.

# TESTING INSTRUMENTATION/CALIBRATION

Instruments used to perform the LFG component leak/emissions testing consisted of the following:

Thermo Scientific TVA-2020 portable Flame Ionization Detector (FID). This instrument
measures methane in air over a range of 1 to 50,000 ppmv. The FID meets BAAQMD
requirements and was calibrated in accordance with manufacturer specifications and
EPA Method 21.

# LFG COMPONENT EMISSIONS MONITORING PROCEDURES

LFG component leak/emissions monitoring was conducted in accordance with BAAQMD Regulation 8, Rule 34 and the LMR. Monitoring was performed with the FID inlet held within 1 to 2 centimeters above all accessible LFG system components including extraction well and control valve vault boxes and flanges, etc.

## **TESTING RESULTS**

On December 18, 2023, quarterly LFG component/leak emissions testing of the collection system valve and wellhead boxes and flare station was performed as required by the BAAQMD. No methane gas concentrations in excess of the LMR limit of 500 ppmv or Rule 8-34 limit of 1000 ppmv limit were detected during this testing. See attached table for monitoring results. Therefore, the next required quarterly testing is due by the end of March 2024.

#### STANDARD PROVISIONS

This report addresses conditions of the subject site on the test date only. Accordingly, we assume no responsibility for any changes that may occur subsequent to our testing which could affect the emissions at the subject site.

Ms. Katragadda December 20, 2023 Page 3

Should you have any questions, do not hesitate to contact either of the undersigned.

Sincerely,

Rebecca L. Lucero Project Coordinator SCS Field Services

cc: Silviana Ruiz

Cameron Kostigen Mumper

Relucea & Lucero

Julie Choun

Stephen Harquail Project Manager SCS Field Services

Technician: Andrew Stone

Date: 12-18-23
Weather: Sunny
ppm = parts per million
NR = Not Required

Temperature: 55
Barometric Pressure: 29

Wind Speed/Direction: 7SE

Instrument: TVA-2020 Calibration: zero-500

#### **East Hill Horizontals**

Monitoring Location (ET's)	Control Valve Vault (ppm)	Wellhead Vault (ppm)	Retesting Results
1E	2.3	2.0	
2E	2.2	2.0	
3E	5.3	2.0	
4E	5.5	2.0	
5E	2.3	2.0	
6E	2.3	2.0	
7E	4.8	4.8	
8E	4.8	4.8	
9E	4.8	4.8	
10E	4.8	4.8	

**Technician:** Andrew Stone

Date: 12-18-23
Weather: Sunny
ppm = parts per million
NR = Not Required

Temperature: 55

Barometric Pressure: 29 Wind Speed/Direction: 7SE

Instrument: TVA-2020 Calibration: zero-500

#### **East Hill Verticals**

Monitoring Location (EW's)	Control Valve Vault (ppm)	Wellhead Vault (ppm)	Retesting Results
1E	4.7	4.7	
2E	2.2	2.2	
3E	2.0	2.0	
4E	2.1	2.1	
5E	2.2	2.2	
6E	2.3	2.3	
7E	2.2	2.3	
8E	2.3	2.3	
9E	2.2	2.2	
10E	2.0	2.0	
11E	2.2	2.2	
12E	2.0	2.0	
13E	2.0	2.0	
14E	2.0	2.0	
15E	2.1	2.0	
16E	2.3	2.0	
17E	2.2	2.0	
18E	2.2	2.0	
19E	2.2	2.0	
20E	2.1	2.0	
21E	2.0	2.0	
22E	2.0	2.0	



**Technician:** Andrew Stone

Date: 12-18-23
Weather: Sunny
ppm = parts per million
NR = Not Required

Temperature: 55

Barometric Pressure: 29 Wind Speed/Direction: 7SE

Instrument: TVA-2020
Calibration: zero-500

#### **East Hill Verticals**

Monitoring Location (EW's)	Control Valve Vault (ppm)	Wellhead Vault (ppm)	Retesting Results
23E	6.7	6.7	
24E	5.8	5.8	
25E	7.6	7.6	
26E	6.3	6.3	
27E	6.1	6.1	
28E	5.7	5.7	
29E	5.4	5.4	
30E	5.4	5.4	
31E	5.4	5.4	
32E	5.0	5.0	
33E	5.0	5,0	
34E	5.0	5.0	
35E	5.0	5.0	
36E	4.8	4.8	

#### **West Hill Horizontals**

Monitoring Location (ET's)	Control Valve Vault (ppm)	Wellhead Vault (ppm)	Retesting Results
1W	1.9	1.9	
2W	1,9	1.9	
3W	1,8	1.8	



**Technician:** Andrew Stone

Date: 12-18-23
Weather: Sunny
ppm = parts per million
NR = Not Required

Temperature: 55
Barometric Pressure: 29

Wind Speed/Direction: 7SE

Instrument: TVA-2020 Calibration: zero-500

#### **West Hill Verticals**

Monitoring Location (EW's)	Control Valve Vault (ppm)	Wellhead Vault (ppm)	Retesting Results
1W	1.8	1.8	
2W	1.8	1.8	
3W	1.6	1.6	
4W	1.5	1.5	
5W	1.5	1.5	
6W	1.5	1.5	
7W	1.6	1,6	
W8	1.6	1.6	
9W	1.5	1.5	
10W	1.6	1.6	
11W	1.6	1.6	
12W	1.7	1.7	
13W	1.7	1.7	
14W	1.7	1.7	
15W	1.5	1.5	
16W	1.5	1.5	
17W	1.4	1.4	
18W	1.4	1.4	
19W	1.4	1.4	
20W	1.7	1.7	
21W	1.7	1.7	



Technician: **Andrew Stone** Temperature:

55 12-18-23 **Barometric Pressure:** 29 Date: Weather: Wind Speed/Direction: 7SE Sunny ppm = parts per million Instrument: TVA-2020 NR = Not Required Calibration: zero-500

**West Hill Verticals** 

Monitoring Location (EW's)	Control Valve Vault (ppm)	Wellhead Vault (ppm)	Retesting Results
22W	22.6	22.6	
23W	16.4	16.4	
24W	10.6	10.6	
25W	11.8	11.8	
26W	7.3	7.3	
27W	6.2	6.2	
28W	5.1	5.1	
29W	2.9	2.9	
30W	2.6	2.6	

# SCS FIELD SERVICES

December 20, 2023, Revised January 22, 2024 File No. 07218240.00

Ms. Julie Choun City of Sunnyvale Post Office Box 3707 Sunnyvale, California 94086

Subject: Fourth Quarter 2023 Power Generation Facility (PGF) and Landfill Gas (LFG) Flare

System Component Leak/Emissions Testing at the Sunnyvale Landfill, Sunnyvale,

California

Dear Ms. Choun:

This letter provides results of the fourth quarter 2023 PGF and LFG flare system component leak/emissions monitoring as required by Bay Area Air Quality Management District (BAAQMD) Regulation 8, Rule 34 and the Landfill Methane Rule (LMR). All work was performed by SCS Field Services (SCS) in accordance with City approved Purchase Order.

#### CONCLUSIONS AND RECOMMENDATIONS

On December 18, 2023, PGF and LFG flare positive pressure component (e.g., leak/emissions) monitoring showed no exceedances of BAAQMD Regulation 8, Rule 34 or LMR threshold of 1000 and 500 parts per million (ppm), respectively, with the exception of the PGF Engine (up to 1000 ppm) as noted below. SCS performed the required 10-day retesting on December 29, 2023, with this location returning to compliance (29.9 ppm) Therefore, no additional testing is recommended until the first quarter 2024.

#### BACKGROUND

The Sunnyvale Landfill site is an inactive organic refuse disposal site. By way of background, organic materials buried in a landfill decompose anaerobically (in the absence of oxygen) producing a combustible gas, which contains approximately 50 to 60 percent methane, 40 to 50 percent carbon dioxide, and trace amounts of various other gases, some of which are odorous. The Sunnyvale property contains a system to control the combustible gases generated in the landfill.

The gases produced in the landfill will either vent vertically to the atmosphere or migrate horizontally through subsurface soil to locations on adjacent properties. If the soil surrounding a landfill consists of permeable materials, there is a greater likelihood that the LFG will migrate to offsite locations. If the methane gas component of LFG is allowed to accumulate in a confined area (i.e., utility lines, irrigation valve boxes, vaults, basements, wall spaces, etc.) and is exposed to an ignition source, it can be explosive at concentrations between 5 and 15 percent by volume. At higher concentrations, methane gas is flammable. However, the presence of methane gas in site soil does not mean there is an immediate threat of explosion because flames cannot typically propagate through soil.



Ms. Julie Choun December 20, 2023 Revised January 22, 2024 Page 2

#### LFG COMPONENT EMISSIONS MONITORING

On December 18, 2023, PGF and Flare landfill gas component leak/emissions monitoring was performed at the subject site. The intent of the monitoring was to identity any specific locations at the PGF with organic compound concentrations exceeding BAAQMD, Regulation 8, Rule 34 and LMR threshold limit value of 1000 ppmv or 500 ppmv, respectively measured as methane.

#### TESTING INSTRUMENTATION/CALIBRATION

Instruments used to perform the LFG component leak/emissions testing consisted of the following:

 Thermo-Scientific TVA-2020 (TVA). This instrument measures methane in air over a range of 1 to 50,000 ppmv. The TVA-2020 meets BAAQMD requirements and was calibrated in accordance with manufacturer specifications and EPA Method 21.

#### LFG COMPONENT EMISSIONS MONITORING PROCEDURES

LFG component leak/emissions monitoring was conducted in accordance with BAAQMD Regulation 8, Rule 34 and the LMR. Monitoring was performed with the TVA-2020 inlet held within 1 to 2 centimeters above all/accessible PGF system components under positive pressure including valves, flanges, blower seals, etc.

#### **TESTING RESULTS**

On December 18, 2023, quarterly LFG component/leak emissions testing of the PGF and LFG Flare Station were performed as required by the BAAQMD (see attached data table). No location of the LFG flare tested exceeded the Rule 8-34 1000 ppmv limit and LMR 500 ppmv limit during our monitoring event. Note that during monitoring, the PGF engine results were 1000 ppm. SCS understands that WPCP staff performed necessary repairs on December 19, 2023. Upon retesting of this location by SCS on December 29, 2023, the PGF engine returned to compliance with the results of 29.9 ppm. Therefore, the next required quarterly testing for all components is due by the end of March 2024.

#### STANDARD PROVISIONS

This report addresses conditions of the subject site on the test date only. Accordingly, we assume no responsibility for any changes that may occur subsequent to our testing which could affect the emissions at the subject site.

Ms. Julie Choun December 20, 2023 Revised January 22, 2024 Page 3

Should you have any questions, do not hesitate to contact either of the undersigned.

Sincerely,

Rebecca L. Lucero Project Coordinator SCS Field Services

cc: Melody Tovar
Bryan Berdeen
Silviana Ruiz

Sunanda Katragadda

Relucea & Lucero

Stephen Harquail Project Manager SCS Field Services

#### Fourth Quarter 2023

# Power Generation Facility (PGF) and Landfill Gas Flare Station Component/Leak Emissions Testing City of Sunnyvale, Sunnyvale, California

Technician: Andrew Stone Temp: 55

Date: 12-18-23
Weather: Sunny
ppm = parts per million
NR = Not Required

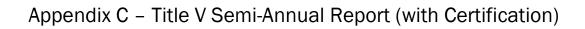
Barometric Pressure: 29
Wind Speed/Direction: 7 SE
Instrument: TVA-2020
Calibration: 12-18-23

#### Flare Station

Monitoring Location	Testing Results (ppm)	Retesting Results (ppm)	Comments
Blowers	2		
Valves	2		
Piping	2		
Flanges	2		

#### **Power Generation Facility**

Monitoring Location	Testing Results (ppm)	Retesting Results (ppm) (12/29/23)	Comments
Compressor	9.8		
Valves	22.6		
Piping	33.7		
Flanges	10.8		
Blowers	59.2		
Engines	1000	29.9	



City of Sunnyvale <u>www.scsengineers.com</u>

### TITLE V SEMI-ANNUAL MONITORING REPORT

SITE:	FACILITY ID#:
City of Sunnyvale Landfill and SMaRT Station®, Environmental	A5905
Services Department	
<b>REPORTING PERIOD:</b> from 07/1/2023 through 12/31/2023	3

#### **CERTIFICATION:**

I declare, under penalty of perjury under the laws of the state of California, that, based on information and belief formed after reasonable inquiry, all information provided in this reporting package is true, accurate, and addresses all deviations during the reporting period:

Ramana Chinnakotla	1/26/2024
Signature of Responsible Official	Date
Ramana Chinnakotla Name of Responsible Official (please print)	
<u>Director of Environmental Services</u> Title of Responsible Official (please print)	

Mail to:

Director of Compliance and Enforcement BAAQMD 375 Beale Street San Francisco, CA 94105 Attn: Title V reports

Site: City of Sunnyvale Landfill and SMaRT Station®,	Facility ID#: A5905
Environmental Services Department	
Permitted Unit: S-8 Sunnyvale Landfill with Gas Collection	Reporting Period: from 07/01/2023 through 12/31/2023
System and A-9 Landfill Gas Flare	

SITE: City of Sunnyvale Landfill and SMaRT Station®, Environmental Services	FACILITY ID#: A5905
Department	
<b>REPORTING PERIOD:</b> from 07/1/2023 through 12/31/2023	

#### **List of Permitted Sources and Abatement Device**

Permit Unit Number	<b>Equipment Description</b>
S-#	Description
S-1	Solid Waste Transfer Station
S-2	Wood Waste Unloading Operation
S-3*	Wood Shredder
S-4*	Conveyor
S-5	Wood Chip Processing
S-6**	Wood Chip Screening
S-7	Diesel Engine (Emergency Standby Generator)
S-8	Gas Collection System: 66 Vertical Extraction Wells and 13 Horizontal Collectors
S-10****	Wood Shredder
S-11****	Conveyor
A-1	Wet Suppression System
A-5	Bag House Dust Collector
A-8***	Landfill Gas Flare, 45 MM BTU/hr
A-9	Landfill Gas Flare, 600 SCFM of waste gas, 18 MM BTU/hr

Notes: \*S-3 was replaced by S-10 and S-4 was replaced by S-11 per application #26967. Permit to Operate (PTO) issued August 6, 2015.

<sup>\*\*</sup>S-6 was taken out of service permanently on 12/5/2016.

<sup>\*\*\*</sup>A-8 was taken out of service permanently on 9/3/13; A-9 was started up on 9/3/13

<sup>\*\*\*\*</sup>S-10 and S-11 were included in the PTO issued January 21, 2022

Site: City of Sunnyvale Landfill and SMaRT Station®,	Facility ID#: A5905
Environmental Services Department	
Permitted Unit: S-8 Sunnyvale Landfill with Gas Collection	Reporting Period: from 07/01/2023 through 12/31/2023
System and A-9 Landfill Gas Flare	

Type of Limit or Criteria	Monitoring Requirement Citation	Monitoring Type	Monitoring Frequency	Citation of Limit	Limit	Compliance	Corrective Actions Taken
Periods of Inoperation for Parametric Monitors	BAAQMD 1-523.4	Operating records for all parametric monitors (gas flow meters and temperature monitors)	Periodic/ Daily	BAAQMD 1-523.1 and 1-523.2	Inoperation < 24 hours; ≤ 15 consecutive days per incident and ≤ 30 calendar days per 12-month period	Continuous	N/A
Opacity	None	NA	None	BAAQMD 6-1-301 and SIP 6-301	Ringelmann No. 1 for < 3 minutes in any hour (applies to flare)	Continuous	N/A
FP	None	NA	None	BAAQMD 6-1-310 and SIP 6-310	≤ 0.15 grains/dscf (applies to flare)	Continuous	N/A
Continuous Operation	BAAQMD 8-34-501.1, 8-34-501.2, 8-34-501.10, 8-34-508 and BAAQMD Condition # 11586, Parts 3, 6, and 7	Gas Flow Meter and Recorder (every 15 minutes)  Records of Landfill Gas Flow Rates, Collection and Control Systems Downtime and Collection System Components	Continuous	BAAQMD 8-34-301 and 301.1 and BAAQMD Condition #11586, Parts 2-7	Landfill gas collection system shall operate continuously and all collected gases shall be vented to a properly operating control system.	Intermittent	Two unplanned shutdowns of the GCCS occurred on September 14, 2023. RCA Notification Forms and follow-up reports were submitted by the City and breakdown relief was requested. Submittals are provided in Appendix E.
Collection and Control Systems Shutdown Time	BAAQMD 8-34-501.1	Operating Records	Periodic/ Daily	BAAQMD 8-34-113.2	≤ 240 hours per year and ≤ 5 consecutive days	Continuous	N/A

Site: City of Sunnyvale Landfill and SMaRT Station®,	Facility ID#: A5905
Environmental Services Department	
Permitted Unit: S-8 Sunnyvale Landfill with Gas Collection	Reporting Period: from 07/01/2023 through 12/31/2023
System and A-9 Landfill Gas Flare	

Type of Limit or Criteria	Monitoring Requirement Citation	Monitoring Type	Monitoring Frequency	Citation of Limit	Limit	Compliance	Corrective Actions Taken
Well Shutdown Limits	BAAQMD 8-34-117.6 and 501.1	Records	Periodic/ Daily	BAAQMD 8-34-117.4	No more than 5 wells at a time or 10% of total collection system, whichever is less	Continuous	N/A
Well Shutdown Limits	BAAQMD 8-34-501.6 and 503	Records	Periodic/ Daily	BAAQMD 8-34-117.5	≤ 24 hours per well	Continuous	N/A
TOC (Total Organic Compounds Plus Methane)	BAAQMD 8-34-501.6 and 503	Quarterly Inspection of collection and control system components with portable analyzer and Records	Periodic/ Quarterly	BAAQMD 8-34-301.2	Component Leak Limit: ≤ 1,000 ppmv as methane	Continuous	N/A
TOC	BAAQMD 8-34-415, 416, 501.4, 501.6, and 510	Monthly visual inspection of cover, quarterly inspection of surface with portable analyzer, various re-inspection times for leaking areas, and records	Periodic/ Monthly, Quarterly, and Event basis	BAAQMD 8-34-303	Surface Leak Limit ≤ 500 ppmv as methane at 2 inches above surface	Continuous	N/A
Non-Methane Organic Compounds (NMOC)	BAAQMD 8-34-501.4 and BAAQMD Condition # 11586, Part 12	Annual Source Tests and Records	Periodic/ Annual	BAAQMD 8-34-301.3 and BAAQMD Condition # 11586, Part 10	Flare Destruction Efficiency: > 98% removal by weight OR Flare Outlet Concentration: < 30 ppmv, expressed as methane, dry basis @ 3% O <sub>2</sub>	Continuous	N/A

Site: City of Sunnyvale Landfill and SMaRT Station®,	Facility ID#: A5905
Environmental Services Department	
Permitted Unit: S-8 Sunnyvale Landfill with Gas Collection	Reporting Period: from 07/01/2023 through 12/31/2023
System and A-9 Landfill Gas Flare	

Type of Limit	Monitoring		Monitoring	Citation of			
or Criteria	Requirement Citation	Monitoring Type	Frequency	Limit	Limit	Compliance	Corrective Actions Taken
SO <sub>2</sub>	None	N/A	None	BAAQMD 9-1-301	Property Line Ground Level Limits: ≤ 0.5 ppm for 3 minutes and ≤ 0.25 ppm for 60 min., and ≤ 0.05 ppm for 24 hours	Continuous	N/A
SO <sub>2</sub>	BAAQMD Condition # 11586, Parts 12-13	Source Tests, Sulfur analysis of landfill gas and Records	Periodic/ Annual	BAAQMD 9-1-302	For Flare: <pre></pre>	Continuous	N/A
H <sub>2</sub> S	None	N/A	None	BAAQMD 9-2-301	Property Line Ground Level Limits: $\leq 0.06$ ppm averaged over 3 min. and $\leq 0.03$ ppm for 60 min.	Continuous	N/A
NO <sub>x</sub>	BAAQMD Condition # 11586, Part 12	Annual Source Test and Records (upon start-up of A-9 Flare).	Periodic/ Annual	BAAQMD Condition # 11586, Part 8	A-9 Flare: < 0.06 pounds NOx (calculated as NO <sub>2</sub> ) per MM BTU	Continuous	N/A
СО	BAAQMD Condition # 11586, Part 12	Annual Source Test and Records (upon start-up of A-9 Flare).	Periodic/ Annual	BAAQMD Condition # 11586, Part 9	A-9 Flare: ≤ 0.20 pounds CO per MM BTU	Continuous	N/A
Source Test Submittal	BAAQMD Condition # 11586, Part 12	Report Submittal	Annual	BAAQMD Condition # 11586, Part 12	60 days after testing performed	Continuous	N/A

Site: City of Sunnyvale Landfill and SMaRT Station®,	Facility ID#: A5905
Environmental Services Department	
Permitted Unit: S-8 Sunnyvale Landfill with Gas Collection	Reporting Period: from 07/01/2023 through 12/31/2023
System and A-9 Landfill Gas Flare	

Type of Limit or Criteria	Monitoring Requirement Citation	Monitoring Type	Monitoring Frequency	Citation of Limit	Limit	Compliance	Corrective Actions Taken
Temperature of Combustion Zone (CT)	BAAQMD 8-34-501.3, 8-34-507, and BAAQMD Condition # 11586, Part 11	Temperature Sensor and Recorder (continuous)	Continuous	BAAQMD Condition # 11586, Part 11	Flare CT: ≥ 1400 °F, averaged over any 3-hour period	Continuous	N/A
Shut Down Date	BAAQMD Condition # 11586, Part 14	Notification and Records	Periodic/ Event Basis	BAAQMD Condition # 11586, Part 14	Deleted after A-8 was removed from service	N/A	N/A

Site: City of Sunnyvale Landfill and SMaRT Station®,	Facility ID#: A5905
Environmental Services Department	
Permitted Unit: S-10 Wood Shredder and A-5 Baghouse	<b>Reporting Period:</b> from 07/01/2022 through 12/31/2022
Dust Collector	

Type of Limit or Criteria	Monitoring Requirement Citation	Monitoring Type	Monitoring Frequency	Citation of Limit	Limit	Compliance	Corrective Actions Taken
Periods of In- operation for Parametric Monitors	BAAQMD 1-523.4	Operating Records for All Parametric Monitors (manometer at baghouse)	Periodic/ Event Based	BAAQMD 1-523.2	≤ 15 consecutive days per incident and ≤ 30 calendar days per 12-month period	Continuous	N/A
Opacity	BAAQMD Condition # 5369, Parts 5 and 6	Continuous Pressure Drop Across Baghouse, Weekly Inspections, and Records	Continuous and Periodic/ Weekly	BAAQMD Regulation 6-301 and SIP 6-301	Ringelmann No. 1     for 3 minutes/hour	Continuous	N/A
Filterable Particulate (FP)	None	N/A	None	BAAQMD 6-1-310 and SIP 6-310	≤ 0.15 grains/dscf	Continuous	N/A
Particulate Matter (PM)	BAAQMD Condition # 5369, Part 7	Calculations and Records	Periodic/ Daily	BAAQMD 6-1-311 and SIP 6-311	E = 0.026(P) <sup>0.67</sup> where: E = Allowable Emission Rate (lb/hr); and P = Process Weight Rate (lb/hr) Maximum Allowable Emission Rate = 40 lb/hr For P >57,320 lb/hr (or P > 28.66 tons/hr)	Continuous	N/A
Wood Waste Throughput	BAAQMD Condition # 5369, Part 7	Records	Periodic/ Daily	BAAQMD Condition # 5369, Part 3	< 255 tons per calendar day	Continuous	N/A

Site: City of Sunnyvale Landfill and SMaRT Station®, Environmental Services Department	Facility ID#: A5905
Permitted Unit: S-11 CONVEYOR AND S-5 WOOD CHIP PROCESSING HOPPERS	<b>Reporting Period:</b> from 07/01/2022 through 12/31/2022

Type of Limit or Criteria	Monitoring Requirement Citation	Monitoring Type	Monitoring Frequency	Citation of Limit	Limit	Compliance	Corrective Actions Taken
Opacity	BAAQMD Condition # 5370, Part 3	Visual Observation of Operations	Periodic / Event basis	BAAQMD Regulation 6-301 and SIP 6-301	≤ Ringelmann No. 1 for 3 minutes/hour	Continuous	N/A
PM	BAAQMD Condition # 5370, Part 2	Calculations and Records	Periodic/ Daily	BAAQMD 6-1-311 and SIP 6-311	E = 0.026(P) <sup>0.67</sup> where: E = Allowable Emission Rate (lb/hr); and P = Process Weight Rate (lb/hr) Maximum Allowable Emission Rate = 40 lb/hr For P >57,320 lb/hr (or P > 28.66 tons/hr)	Continuous	N/A
Wood Waste Throughput	BAAQMD Condition # 5370, Part 1	Records	Periodic / Daily	BAAQMD Condition # 5370, Part 2	≤ 255 tons per calendar day	Continuous	N/A

<b>Site:</b> City of Sunnyvale Landfill and SMaRT Station <sup>®</sup> , Environmental Services Department	Facility ID#: A5905
Permitted Unit: S-6 WOOD CHIP SCREENING OPERATION	Reporting Period: from 07/01/2022 through 12/31/2022

Type of Limit or Criteria Opacity	Monitoring Requirement Citation BAAQMD Condition # 5371, Part 3	Monitoring Type Visual Observation of Operations	Monitoring Frequency Periodic / Event basis	Citation of Limit BAAQMD Regulation 6-301 and SIP 6-301	Limit ≤ Ringelmann No. 1 for 3 minutes/hour	Compliance Continuous	Corrective Actions Taken N/A
PM	BAAQMD Condition # 5371, Part 4	Calculations and Records	Periodic/ Daily	BAAQMD 6-1-311 and SIP 6-311	E = 0.026(P) <sup>0.67</sup> where: E = Allowable Emission Rate (lb/hr); and P = Process Weight Rate (lb/hr) Maximum Allowable Emission Rate = 40 lb/hr For P > 57,320 lb/hr (or P > 28.66 tons/hr)	Continuous	NA
Wood Waste Throughput	BAAQMD Condition # 5371, Part 4	Records	Periodic / Daily	BAAQMD Condition # 5371, Part 1	≤ 255 tons per calendar day	Continuous	N/A

Site: City of Sunnyvale Landfill and SMaRT Station®,	Facility ID#: A5905
Environmental Services Department	
Permitted Unit: S-7 DIESEL ENGINE FOR AN EMERGENCY	<b>Reporting Period:</b> from 07/01/2023 through 12/31/2023
STANDBY GENERATOR	

Type of Limit	Monitoring Requirement Citation	Monitoring Type	Monitoring Frequency	Citation of Limit	Limit	Compliance	Corrective Actions Taken
Opacity	None	N/A	None	BAAQMD 6-1-303 and SIP 6-303	≤ Ringelmann 2.0 for 3 minutes in any hour	Continuous	N/A
FP	None	N/A	None	BAAQMD 6-1-310 and SIP 6-310	≤ 0.15 grains/dscf	Continuous	N/A
SO <sub>2</sub>	None	N/A	None	BAAQMD 9-1-301	Property Line Ground Level Limits: $\leq 0.5$ ppm for 3 minutes and $\leq 0.25$ ppm for 60 minutes and $\leq 0.05$ ppm for 24 hours	Continuous	N/A
SO <sub>2</sub>	CCR Title 13 Title 13, Section 2281(a) (2 and 5), CCR, Title 17, Sections 93115.5 and 93115.10	CARB Diesel Fuel Sulfur Content Limits, Sales Restrictions, Usage Requirement and Records	Periodic / Event basis	BAAQMD 9-1-302	≤ 300 ppm (dry basis)	Continuous	N/A

Site: City of Sunnyvale Landfill and SMaRT Station®,	Facility ID#: A5905
Environmental Services Department	
Permitted Unit: S-7 DIESEL ENGINE FOR AN EMERGENCY	<b>Reporting Period:</b> from 07/01/2023 through 12/31/2023
STANDBY GENERATOR	

Type of Limit or Criteria	Monitoring Requirement Citation	Monitoring Type	Monitoring Frequency	Citation of Limit	Limit	Compliance	Corrective Actions Taken
Liquid Fuel Sulfur Content	CCR Title 13 Title 13, Section 2281(a) (2 and 5), CCR, Title 17, Sections 93115.5 and 93115.10	CARB Diesel Fuel Sulfur Content Limits, Sales Restrictions, Usage Requirement and Records	Periodic / Event basis	BAAQMD 9-1-304	< 0.5 % sulfur by weight	Continuous	N/A
Liquid Fuel Sulfur Content	CCR, Title 17, Sections 93115.5 and 93115.10	CARB Diesel Fuel Sulfur Content Limits, Sales Restrictions, Usage Requirement and Records	Periodic / Event basis	CCR Title 17, Section 93115.5 (b) and CCR, Title 13, Section 2281(a) (2 and 5)	Standby Engines must use CARB Diesel Fuel or other CARB Approved Alternative Fuel, which has Fuel Sulfur Limits of: ≤ 15 ppmw of S	Continuous	N/A
Operating Hours	BAAQMD 9-8-530 and CCR, Title 17, Section 93115.10 (d)(1) and (f)(1) and BAAQMD Condition # 22820, Parts 3-4	Hour Meter and Records	Continuous and Periodic/ Monthly	BAAQMD 9-8-330.3 and CCR, Title 17, Section 93115.6 (b)(3)(A) (1)(a) and BAAQMD Condition # 22820, Part 1	Operating Hours for Reliability-Related Activities: ≤ 20 hours in a calendar year	Continuous	N/A

Site: City of Sunnyvale Landfill and SMaRT Station®,	Facility ID#: A5905
Environmental Services Department	
Permitted Unit: S-7 DIESEL ENGINE FOR AN EMERGENCY	<b>Reporting Period:</b> from 07/01/2023 through 12/31/2023
STANDBY GENERATOR	

Type of Limit or Criteria	Monitoring Requirement Citation	Monitoring Type	Monitoring Frequency	Citation of Limit	Limit	Compliance	Corrective Actions Taken
Operating Hours	40 CFR 63.6625(f) and 63.6655(f)(2)	Hour Meter and Records		40 CFR 63.6640 (f)(1)(ii)	Operating Hours for Maintenance Checks, Readiness Testing, and Other Non-Emergency Operation: ≤ 100 hours in a calendar year	Continuous	N/A
Operating Hours	40 CFR 63.6625(f) and 63.6655(f)(2)	Hour Meter and Records		40 CFR 63.6640 (f)(1)(iii)	Operating Hours for Non-Emergency Operation: ≤ 50 hours in a calendar year	Continuous	N/A
Idle Time	None	N/A	None	40 CFR 63.6625(h)	≤30 minutes for start-up	Continuous	N/A

Site: City of Sunnyvale Landfill and SMaRT Station®,	Facility ID#: A5905
Environmental Services Department	
Permitted Unit: S-7 DIESEL ENGINE FOR AN EMERGENCY	<b>Reporting Period:</b> from 07/01/2023 through 12/31/2023
STANDBY GENERATOR	

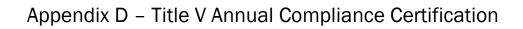
Type of Limit	Monitoring Requirement Citation	Monitoring Type	Monitoring Frequency	Citation of Limit	Limit	Compliance	Corrective Actions Taken
Maintenance Events	40 CFR 63.6655(e)	Records	Periodic/ Event Basis	40 CFR, Part 63, Subpart ZZZZ, Table 2d 4.a.	Change Oil and Filter: Every 500 hours of operation or annually, whichever comes first	Continuous	N/A
Maintenance Events	40 CFR 63.6655(e)	Records	Periodic/ Event Basis	40 CFR, Part 63, Subpart ZZZZ, Table 2d 4.b.	Inspect Air Cleaner: Every 1,000 hours of operation or annually, whichever comes first	Continuous	N/A
Maintenance Events	40 CFR 63.6655(e)	Records	Periodic/ Event Basis	40 CFR, Part 63, Subpart ZZZZ, Table 2d 4.c.	Inspect Hoses and Belts and (if necessary) Replace Hoses and Belts: Every 500 hours of operation or annually, whichever comes first	Continuous	N/A

Site: City of Sunnyvale Landfill and SMaRT Station®,	Facility ID#: A5905
Environmental Services Department	
Permitted Unit: S-1 Solid Waste Transfer Station and A-1	Reporting Period: from 07/01/2023 through 12/31/2023
WET SUPPRESSION SYSTEM	

Type of Limit or Criteria Opacity	Monitoring Requirement Citation BAAQMD Condition # 5367, Part 3	Monitoring Type Visual Observation of Operations	Monitoring Frequency Periodic / Event basis	Citation of Limit  BAAQMD 6-1-301, SIP 6-301, and BAAQMD Condition # 5367, Part 2	Limit  ≤ Ringelmann No. 1 for 3 minutes/hour	Compliance Continuous	Corrective Actions Taken N/A
Refuse Throughput	BAAQMD Condition # 5367, Part 4	Records	Periodic / Daily	BAAQMD Condition # 5367, Part 1	≤ 1500 tons per calendar day	Continuous	N/A

Site: City of Sunnyvale Landfill and SMaRT Station®, Environmental Services Department	Facility ID#: A5905
Permitted Unit: S-2 WOOD WASTE UNLOADING OPERATION	Reporting Period: from 07/01/2023 through 12/31/2023

Type of Limit or Criteria Opacity	Monitoring Requirement Citation BAAQMD Condition # 5368,	Monitoring Type Visual Observation of Operations	Monitoring Frequency Periodic / Event basis	Citation of Limit BAAQMD 6-1-301 and	Limit  ≤ Ringelmann No. 1 for 3 minutes/hour	Compliance Continuous	Corrective Actions Taken N/A
Wood Waste Throughput	Part 5 BAAQMD Condition # 5368, Part 6	Records	Periodic / Daily	SIP 6-301  BAAQMD Condition # 5368, Part 3	≤ 298 tons per calendar day	Continuous	N/A



City of Sunnyvale <u>www.scsengineers.com</u>

### TITLE V ANNUAL COMPLIANCE CERTIFICATION

SITE:	·	FACILITY ID#:	·
City of Sunnyvale Landfill and SMaRT Static	on <sup>®</sup> ,	A5905	
Environmental Services Department			
<b>REPORTING PERIOD:</b> from 01/1/2023	through 12/31/2	2023	
CERTIFICATION:			
declare under penalty of periury under the laws	s of the state of Calif	ornia, that, based on information and belief formed after	reasonable
		curate, and addresses all deviations during the reporting p	
inquity, an information provided in and reporting	5 paonago is trae, aco	rature, and addresses an deviations during the reporting p	, <b>c</b> 110 <b>c.</b>
Ramana Chinnakotla			
Ramana Ininnakolla	1/26/2024		
Signature of Responsible Official	Date		
8 8 r.			
Ramana Chinnakotla			
Name of Responsible Official (please print)			
r r			
Director of Environmental Services			

Mail to:

Director of Compliance and Enforcement BAAQMD 375 Beale Street San Francisco, CA 94105 Attn: Title V reports

U.S. EPA Region IX Air – 3 75 Hawthorne Street San Francisco, CA 94105

### TITLE V ANNUAL COMPLIANCE CERTIFICATION

SITE: City of Sunnyvale Landfill and SMaRT Station <sup>®</sup> ,	FACILITY ID#: A5905
Environmental Services Department	
REPORTING PERIOD: from 01/1/2023 through 12/31/2	2023

#### **List of Permitted Sources and Abatement Device**

Permit Unit Number	<b>Equipment Description</b>
S-#	Description
S-1	Solid Waste Transfer Station
S-2	Wood Waste Unloading Operation
S-3*	Wood Shredder
S-4*	Conveyor
S-5	Wood Chip Processing
S-6**	Wood Chip Screening
S-7	Diesel Engine (Emergency Standby Generator)
C 0	Gas Collection System: 66 Vertical Extraction Wells and 13 Horizontal
S-8	Collectors
S-10****	Wood Shredder
S-11****	Conveyor
A-1	Wet Suppression System
A-5	Bag House Dust Collector
A-8***	Landfill Gas Flare, 45 MM BTU/hr
A-9	Landfill Gas Flare, 600 SCFM of waste gas, 18 MM BTU/hr

Notes: \*S-3 was replaced by S-10 and S-4 was replaced by S-11 per application #26967. Permit to Operate (PTO) issued August 6, 2015. \*\*S-6 was taken out of service permanently on 12/5/2016.

<sup>\*\*\*</sup>A-8 was taken out of service permanently on 9/3/13; A-9 was started up on 9/3/13

<sup>\*\*\*\*</sup>S-10 and S-11 were included in the PTO issued January 21, 2022.

Site #: A5905 Site Name: City of Sunnyvale Landfill and SMaRT Station®, Reporting Period: 1/1/2023 to 12/31/2023

**Environmental Services Department** 

Address: 301 Carl Road City: Sunnyvale Zip Code: 94089

Boarce III B G	Source Name: City of Sumiyvale Samtar	y Danaini ana i		
			Continuous or	
Applicable	Regulation Title or	Compliance	Intermittent	
Requirement	Description of Requirement	(Y/N)		Days out of compliance / Comments
BAAQMD				
Regulation 1	General Provisions and Definitions (5/4/11)			
1-301	Public Nuisance	Y	Continuous	N/A
1-523	Parametric Monitoring and Recordkeeping Procedures	Y	Continuous	N/A
1-523.1	Parametric monitor periods of inoperation >24 hours	Y	Continuous	N/A
1-523.2	Limit on duration of inoperation	Y	Continuous	N/A
1-523.3	Reports of Violations	Y	Continuous	N/A
1-523.4	Records	Y	Continuous	N/A
1-523.5	Maintenance and calibration	Y	Continuous	N/A
SIP				
Regulation 1	General Provisions and Definitions (6/28/99)			
1-523	Parametric Monitoring and Recordkeeping Procedures	Y	Continuous	N/A
1-523.3	Reports of Violations	Y	Continuous	N/A
BAAQMD				
Regulation 6	Particulate Matter – General Requirements (12/5/07)			
Rule 1				
6-1-301	Ringelmann No. 1 Limitation (applies to flare only)	Y	Continuous	N/A
6-1-305	Visible Particles (applies to flare only)	Y	Continuous	N/A
6-1-310	Particle Weight Limitation (applies to flare only)	Y	Continuous	N/A
6-1-401	Appearance of Emissions (applies to flare only)	Y	Continuous	N/A
SIP				
Regulation 6	Particulate Matter and Visible Emissions (9/4/98)			
6-301	Ringelmann No. 1 Limitation (applies to flare only)	Y	Continuous	N/A
6-305	Visible Particles (applies to flare only)	Y	Continuous	N/A
6-310	Particle Weight Limitation (applies to flare only)	Y	Continuous	N/A
6-401	Appearance of Emissions (applies to flare only)	Y	Continuous	N/A

Site #: A5905 Site Name: City of Sunnyvale Landfill and SMaRT Station®, Reporting Period: 1/1/2023 to 12/31/2023

Environmental Services Department

Address: 301 Carl Road City: Sunnyvale Zip Code: 94089

<b>5001 CC π. 5-6</b>	Landini and A-9 Fiare Source Name: City of Sunnyvale Sanita			
			Continuous or	
Applicable	Regulation Title or	Compliance	Intermittent	
Requirement	Description of Requirement	(Y/N)		Days out of compliance / Comments
BAAQMD				
Regulation 8,	Organic Compounds – Solid Waste Disposal Sites			
Rule 34				
8-34-113	Limited Exemption, Inspection and Maintenance	Y	Continuous	N/A
8-34-113.1	Emission Minimization Requirement	Y	Continuous	N/A
8-34-113.2	Shutdown Time Limitation	Y	Continuous	N/A
8-34-113.3	Recordkeeping Requirement	Y	Continuous	N/A
8-34-117	Limited Exemption, Gas Collection System Components	Y	Continuous	N/A
8-34-117.1	Necessity of Existing Component Repairs/Adjustments	Y	Continuous	N/A
8-34-117.2	New Components are Described in Collection and Control System	Y	Continuous	N/A
	Design Plan			
8-34-117.3	Meet Section 8-34-118 Requirements	Y	Continuous	N/A
8-34-117.4	Limits on Number of Wells Shutdown	Y	Continuous	N/A
8-34-117.5	Shutdown Duration Limit	Y	Continuous	N/A
8-34-117.6	Well Disconnection Records	Y	Continuous	N/A
8-34-118	Limited Exemption, Construction Activities	Y	Continuous	N/A
8-34-118.1	Construction Plan	Y	Continuous	N/A
8-34-118.2	Activity is Required to Maintain Compliance with this Rule	Y	Continuous	N/A
8-34-118.3	Required or Approved by Other Enforcement Agencies	Y	Continuous	N/A
8-34-118.4	Emission Minimization Requirement	Y	Continuous	N/A
8-34-118.5	Excavated Refuse Requirements	Y	Continuous	N/A
8-34-118.6	Covering Requirements for Exposed Refuse	Y	Continuous	N/A
8-34-118.7	Installation Time Limit	Y	Continuous	N/A
8-34-118.8	Capping Required for New Components	Y	Continuous	N/A
8-34-118.9	Construction Activity Records	Y	Continuous	N/A
8-34-119	Limited Exemption, Inactive or Closed Landfills	Y	Continuous	N/A
8-34-120	Limited Exemption, Small Design Capacity Landfills	Y	Continuous	N/A

Site #: A5905 Site Name: City of Sunnyvale Landfill and SMaRT Station®, Reporting Period: 1/1/2023 to 12/31/2023

Environmental Services Department

Address: 301 Carl Road City: Sunnyvale Zip Code: 94089

	Bource (value, City of Buility value Builita			
Amuliaabla	Deculation Title on	Compliance	Continuous or Intermittent	
Applicable	Regulation Title or	Compliance	Intermittent	Down and of compliance / Comments
Requirement	Description of Requirement	(Y/N)	G t	Days out of compliance / Comments
8-34-301	Landfill Gas Collection and Emission Control System Requirements	Y	Continuous	N/A
8-34-301.1	Continuous Operation	Y	Intermittent	Seven unplanned shutdowns of the GCCS occurred on December 31, 2022 into January 1-2, 2023, January 9, January 16, January 19, January 31, and September 14, 2023. RCA Notification Forms and follow-up reports were submitted by the City and breakdown relief was requested. Submittals are provided in Appendix E.  The RCAs from December 31, 2022 to January 19, 2023 resulted in an NOV, issued on March 8, 2023, for which a response was submitted and is included in Appendix E.
8-34-301.2	Collection and Control Systems Leak Limitations	Y	Continuous	N/A
8-34-301.3	Limits for Enclosed Flares (applies to flare only)	Y	Continuous	N/A
8-34-303	Landfill Surface Requirements	Y	Continuous	N/A
8-34-304	Gas Collection System Installation Requirements	Y	Continuous	N/A
8-34-304.1	Based on Waste Age For Inactive or Closed Areas	Y	Continuous	N/A
8-34-304.3	Based on Amount of Decomposable Waste Accepted	Y	Continuous	N/A
8-34-304.4	Based on NMOC Emission Rate	Y	Continuous	N/A
8-34-404	Less Than Continuous Operation Petition	Y	Continuous	N/A
8-34-405	Design Capacity Reports	Y	Continuous	N/A
8-34-408	Collection and Control System Design Plans	Y	Continuous	N/A
8-34-408.2	Sites With Existing Collection and Control Systems	Y	Continuous	N/A
8-34-411	Annual Report	Y	Continuous	N/A
8-34-415	Repair Schedule for Surface Leak Excesses	Y	Continuous	N/A
8-34-415.1	Records of Excesses	Y	Continuous	N/A
8-34-415.2	Corrective Action	Y	Continuous	N/A

Site #: A5905 Site Name: City of Sunnyvale Landfill and SMaRT Station®, Reporting Period: 1/1/2023 to 12/31/2023

Environmental Services Department

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504100 7 5 6	Boulet Name, City of Bunny vale Bunna		Continuous or	
Applicable	Regulation Title or	Compliance	Intermittent	
Requirement	Description of Requirement	(Y/N)		Days out of compliance / Comments
8-34-415.3	Re-monitor Excess Location Within 10 Days	Y	Continuous	N/A
8-34-415.4	Re-monitor Excess Location Within 1 Month	Y	Continuous	N/A
8-34-415.5	If No More Excesses, No Further Re-Monitoring	Y	Continuous	N/A
8-34-415.6	Additional Corrective Action	Y	Continuous	N/A
8-34-415.7	Re-monitor Second Excess Within 10 days	Y	Continuous	N/A
8-34-415.8	Re-monitor Second Excess Within 1 Month	Y	Continuous	N/A
8-34-415.9	If No More Excesses, No Further Re-monitoring	Y	Continuous	N/A
8-34-415.10	Collection System Expansion for Third Excess in a Quarter	Y	Continuous	N/A
8-34-415.11	Operational Due Date for Expansion	Y	Continuous	N/A
8-34-416	Cover Repairs	Y	Continuous	N/A
8-34-501	Operating Records	Y	Continuous	N/A
8-34-501.1	Collection System Downtime	Y	Continuous	N/A
8-34-501.2	Emission Control System Downtime	Y	Continuous	N/A
8-34-501.3	Continuous Temperature Records for Enclosed Combustors	Y	Continuous	N/A
	(applies to flare only)			
8-34-501.4	Testing	Y	Continuous	N/A
8-34-501.6	Leak Discovery and Repair Records	Y	Continuous	N/A
8-34-501.7	Waste Acceptance Records	Y	Continuous	N/A
8-34-501.8	Non-decomposable Waste Records	Y	Continuous	N/A
8-34-501.9	Wellhead Excesses and Repair Records	Y	Continuous	N/A
8-34-501.10	Gas Flow Rate Records for All Emission Control Systems	Y	Intermittent	Nine periods of control device operation
				during which gas flow was not recorded
				occurred during this reporting period. No
				period of inoperation exceeded 24 hours (See
				Applicable Requirement for 1-523.1 above)
8-34-501.12	Records Retention for 5 Years	Y	Continuous	N/A
8-34-503	Landfill Gas Collection and Emission Control System Leak Testing	Y	Continuous	N/A

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Environmental Services Department

Address: 301 Carl Road City: Sunnyvale Zip Code: 94089

	Bource Name: City of Bunniy vare Bunna		Continuous or	
Applicable	Regulation Title or	Compliance	Intermittent	
Requirement	Description of Requirement	(Y/N)		Days out of compliance / Comments
8-34-504	Portable Hydrocarbon Detector	Y	Continuous	N/A
8-34-507	Continuous Temperature Monitor and Recorder (applies to flares only)	Y	Continuous	N/A
8-34-508	Gas Flow Meter	Y	Continuous	N/A
8-34-510	Cover Integrity Monitoring	Y	Continuous	N/A
BAAQMD	Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)		Continuous	1,412
Regulation 9,	inorganic duscous i ondeanes Sundi Bioxide (5/15/25)			
Rule 1				
9-1-301	Limitations on Ground Level Concentrations (applies to flare only)	Y	Continuous	N/A
9-1-302	General Emission Limitations (applies to flare only)	Y	Continuous	N/A
BAAQMD	Inorganic Gaseous Pollutants – Hydrogen Sulfide (10/6/99)			
Regulation 9,	·			
Rule 2				
9-2-301	Limitations on Hydrogen Sulfide	Y	Continuous	N/A
BAAQMD				
Condition #				
11586				
Part 1	Waste disposal limitations (Regulation 2-1-301)	Y	Continuous	NA
Part 2	Landfill gas collection system operating requirements	Y	Intermittent	Seven unplanned shutdowns of the Gas
	(Regulations 8-34-301, 8-34-303, 8-34-304)			Collection and Control System occurred
				during this report (see Requirements for 8-
				34-301.1 above)
Part 3	Landfill gas collection system description and alteration provisions	Y	Continuous	N/A
	modifications (Regulations 8-34-303, 8-34-304)			
Part 4	Landfill gas control requirements	Y	Continuous	N/A
	(Regulations 8-34-301 and 8-34-301.1)			
Part 5	Landfill gas flare operating and maintenance requirements	Y	Continuous	N/A
	(Regulations 8-34-301 and 8-34-301.1)			

Site #: A5905 Site Name: City of Sunnyvale Landfill and SMaRT Station®, Reporting Period: 1/1/2023 to 12/31/2023

Environmental Services Department

Address: 301 Carl Road City: Sunnyvale Zip Code: 94089

	Source Name. City of Sunnyvaic Saintai	J ====================================	Continuous or	
Applicable	Regulation Title or	Compliance	Intermittent	
Requirement	Description of Requirement	(Y/N)		Days out of compliance / Comments
Part 6	Flow meter requirement for flares (Regulations 8-34-301.1 and 8-34-508 and Cumulative Increase)	Y	Continuous	N/A
Part 7	Alarm requirements for flares (Regulations 8-34-301)	Y	Continuous	N/A
Part 8	NOx emissions limit for A-9 Flare	Y	Continuous	N/A
	(RACT)			
Part 9	CO emissions limit for A-9 Flare	Y	Continuous	N/A
	(RACT)			
Part 10	NMOC emissions limit A-9 Flare (Cumulative Increase, Regulation 2-1-301.3, and 8-34-301.3)	Y	Continuous	N/A
Part 11	Flare temperature limits and monitoring requirements (Regulations 2-5-301, 8-34-301.3, 8-34-501.3, and 8-34-507)	Y	Continuous	N/A
Part 12	Flare source test requirements (Cumulative Increase, RACT, and Regulations 2-5-301, 8-34-301.3, 8-34-507, and 9-1-302)	Y	Continuous	N/A
Part 13	Landfill gas characterization testing requirements (AB-2588 Air Toxic Hot Spots and Regulation 2-5-302)	Y	Continuous	N/A
Part 14	Flare replacement project shut-down and notification submitted (Cumulative Increase)	Y	Continuous	N/A

Site #: A5905 Site Name: City of Sunnyvale Landfill and SMaRT Reporting Period: 1/1/2023 to 12/31/2023

Station®, Environmental Services Department

Address: 301 Carl Road City: Sunnyvale Zip Code: 94089

Source #: S-1 Solid Waste Transfer Station Source Name: Solid Waste Transfer Station

Source #: 5-1 Sond waste Transfer Station Source Name: Sond waste Transfer Station							
			Continuous				
Applicable	Regulation Title or	Compliance	or				
Requirement	Description of Requirement	(Y/N)	Intermittent	Days out of compliance / Comments			
BAAQMD							
Regulation 1	General Provisions and Definitions (5/4/11)						
1-301	Public Nuisance	Y	Continuous	N/A			
BAAQMD	Particulate Matter – General Requirements (12/5/07)						
Regulation 6,							
Rule 1							
6-1-301	Ringelmann No. 1 Limitation	Y	Continuous	N/A			
6-1-305	Visible Particles	Y	Continuous	N/A			
6-1-401	Appearance of Emissions	Y	Continuous	N/A			
SIP	Particulate Matter and Visible Emissions (9/4/98)						
Regulation 6							
6-301	Ringelmann No. 1 Limitation	Y	Continuous	N/A			
6-305	Visible Particles	Y	Continuous	N/A			
6-401	Appearance of Emissions	Y	Continuous	N/A			
BAAQMD							
Condition							
#5367							
Part 1	Throughput limit (Cumulative Increase)	Y	Continuous	N/A			
Part 2	Particulate emission control measures and visible emissions and dust fallout limitations (Regulations 1-301, 2-1-403, 6-1-301, and 6-1-305)	Y	Continuous	N/A			
Part 3	Visual monitoring and corrective action requirements (Regulation 2-1-403, 6-1-301, and 6-1-305)	Y	Continuous	N/A			
Part 4	Record Keeping (Cumulative Increase)	Y	Continuous	N/A			

Site #: A5905 Site Name: City of Sunnyvale Landfill and SMaRT Reporting Period: 1/1/2023 to 12/31/2023

Station®, Environmental Services Department

Address: 301 Carl Road City: Sunnyvale Zip Code: 94089

Source #: S-2 Wood Waste Unloading Source Name: Solid Waste Transfer Station

	Trood wase emouning boure rune. Bond wase in		Continuous	
Applicable	Regulation Title or	Compliance	or	
Requirement	Description of Requirement	(Y/N)	Intermittent	Days out of compliance / Comments
BAAQMD				
Regulation 1	General Provisions and Definitions (5/4/11)			
1-301	Public Nuisance	Y	Continuous	N/A
BAAQMD				
Regulation 6,	Particulate Matter – General Requirements (12/5/07)			
Rule 1				
6-1-301	Ringelmann No. 1 Limitation	Y	Continuous	N/A
6-1-305	Visible Particles	Y	Continuous	N/A
6-1-401	Appearance of Emissions	Y	Continuous	N/A
SIP				
Regulation 6	Particulate Matter and Visible Emissions (9/4/98)			
6-301	Ringelmann No. 1 Limitation	Y	Continuous	N/A
6-305	Visible Particles	Y	Continuous	N/A
6-401	Appearance of Emissions	Y	Continuous	N/A
BAAQMD				
Condition #				
5368				
Part 1	Waste acceptance limitation	Y	Continuous	N/A
	(Cumulative Increase and Regulation 2-5-110)			
Part 2	Waste handling limitation (Cumulative Increase)	Y	Continuous	N/A
Part 3	Throughput limit (Cumulative Increase)	Y	Continuous	N/A
Part 4	Abatement Requirements (Cumulative Increase)	Y	Continuous	N/A
Part 5	Visual monitoring and corrective action requirements	Y	Continuous	N/A
	(Regulation 2-1-403, 6-1-301, and 6-1-305)			
Part 6	Record Keeping (Cumulative Increase and Regulation 2-1-403)	Y	Continuous	N/A

Site #: A5905 Site Name: City of Sunnyvale Landfill and SMaRT Reporting Period: 1/1/2023 to 12/31/2023

Station®, Environmental Services Department

Address: 301 Carl Road City: Sunnyvale Zip Code: 94089

**Source #:** S-10 Wood Shredder and A-5 Baghouse **Source Name:** Solid Waste Transfer Station

**Dust Collector** 

			Continuous	
Applicable	Regulation Title or	Compliance	or	
Requirement	Description of Requirement	(Y/N)	Intermittent	Days out of compliance / Comments
BAAQMD				
Regulation 1	General Provisions and Definitions (5/4/11)			
1-301	Public Nuisance	Y	Continuous	N/A
1-523	Parametric Monitoring and Record keeping Procedures	Y	Continuous	N/A
1-523.1	Reporting requirement for periods of inoperation > 24 hours	Y	Continuous	N/A
1-523.2	Limit on duration of inoperation	Y	Continuous	N/A
1-523.3	Reporting requirement for violations of any applicable limits	Y	Continuous	N/A
1-523.4	Records of inoperation, tests, calibrations, adjustments, &	Y	Continuous	N/A
	maintenance			
1-523.5	Maintenance and calibration	Y	Continuous	N/A
SIP	General Provisions and Definitions (6/28/99)			
Regulation 1				
1-523	Parametric Monitoring and Record keeping Procedures	Y	Continuous	N/A
1-523.3	Reports of Violations	Y	Continuous	N/A
BAAQMD				
Regulation 6,	Particulate Matter – General Requirements (12/5/07)			
Rule 1				
6-1-301	Ringelmann No. 1 Limitation	Y	Continuous	N/A
6-1-305	Visible Particles	Y	Continuous	N/A
6-1-310	Particulate grain loading limitation	Y	Continuous	N/A

Site #: A5905 Site Name: City of Sunnyvale Landfill and SMaRT Reporting Period: 1/1/2023 to 12/31/2023

Station®, Environmental Services Department

Address: 301 Carl Road City: Sunnyvale Zip Code: 94089

**Source #:** S-10 Wood Shredder and A-5 Baghouse **Source Name:** Solid Waste Transfer Station

**Dust Collector** 

			Continuous	
Applicable	Regulation Title or	Compliance	or	
Requirement	Description of Requirement	(Y/N)	Intermittent	Days out of compliance / Comments
6-1-311	General Operations: emission limitation based on processing rate	Y	Continuous	N/A
6-1-401	Appearance of Emissions	Y	Continuous	N/A
SIP	Particulate Matter and Visible Emissions (9/4/98)			
Regulation 6				
6-301	Ringelmann No. 1 Limitation	Y	Continuous	N/A
6-305	Visible Particles	Y	Continuous	N/A
6-310	Particulate grain loading limitation	Y	Continuous	N/A
6-311	General Operations: emission limitation based on processing rate	Y	Continuous	N/A
6-401	Appearance of Emissions	Y	Continuous	N/A
BAAQMD				
Condition #				
5369				
Part 1	Waste processing limitation	Y	Continuous	N/A
	(Cumulative Increase and Regulation 2-5-110)			
Part 2	Enclosure requirement (Cumulative Increase)	Y	Continuous	N/A
Part 3	Throughput limit (Cumulative Increase)	Y	Continuous	N/A
Part 4	Baghouse control requirement (Cumulative Increase)	Y	Continuous	N/A
Part 5	Baghouse pressure monitoring requirement	Y	Continuous	N/A
	(Regulation 2-1-403)			
Part 6	Baghouse Inspection and Maintenance Records (Regulation 2-1-403)	Y	Continuous	N/A
Part 7	Wood Waste Throughput Records	Y	Continuous	N/A
	(Cumulative Increase and Regulation 2-1-403)			

Site #: A5905 Site Name: City of Sunnyvale Landfill and SMaRT Reporting Period: 1/1/2023 to 12/31/2023

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Address: 301 Carl Road City: Sunnyvale Zip Code: 94089

**Source #:** S-10 Wood Shredder and A-5 Baghouse **Source Name:** Solid Waste Transfer Station

**Dust Collector** 

			Continuous	
Applicable	Regulation Title or	Compliance	or	
Requirement	Description of Requirement	(Y/N)	Intermittent	Days out of compliance / Comments
BAAQMD				
Condition #				
5370				
Part 1	Throughput limit (Cumulative Increase)	Y	Continuous	N/A
Part 2	Record Keeping (Cumulative Increase and Regulation 2-1-403)	Y	Continuous	N/A
Part 3	Visual monitoring and corrective action requirements	Y	Continuous	N/A
	(Regulation 2-1-403, 6-1-301, and 6-1-305)			

Site Name: City of Sunnyvale Landfill and SMaRT Reporting Period: 1/1/2023 to 12/31/2023

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Address: 301 Carl Road City: Sunnyvale Zip Code: 94089

**Source #:** S-11 Conveyor and S-5 Wood Chip **Source Name:** Solid Waste Transfer Station

Processing Hoppers

Site #: A5905

			Continuous	
Applicable	Regulation Title or	Compliance	or	
Requirement	Description of Requirement	(Y/N)	Intermittent	Days out of compliance / Comments
BAAQMD				
Regulation 1	General Provisions and Definitions (5/4/11)			
1-301	Public Nuisance	Y	Continuous	N/A
BAAQMD				
Regulation 6,	Particulate Matter – General Requirements (12/5/07)			
Rule 1				
6-1-301	Ringelmann No. 1 Limitation	Y	Continuous	N/A
6-1-305	Visible Particles	Y	Continuous	N/A
6-1-311	General Operations: emission limitation based on processing rate	Y	Continuous	N/A
6-1-401	Appearance of Emissions	Y	Continuous	N/A
SIP				
Regulation 6	Particulate Matter and Visible Emissions (9/4/98)			
6-301	Ringelmann No. 1 Limitation	Y	Continuous	N/A
6-305	Visible Particles	Y	Continuous	N/A
6-311	General Operations: emission limitation based on processing rate	Y	Continuous	N/A
6-401	Appearance of Emissions	Y	Continuous	N/A
BAAQMD				
Condition #				
5369				
Part 1	Waste processing limitation	Y	Continuous	N/A
	(Cumulative Increase and Regulation 2-5-110)			
Part 2	Enclosure requirement (Cumulative Increase)	Y	Continuous	N/A
Part 3	Throughput limit (Cumulative Increase)	Y	Continuous	N/A
Part 4	Baghouse control requirement (Cumulative Increase)	Y	Continuous	N/A

Site #: A5905 Site Name: City of Sunnyvale Landfill and SMaRT Reporting Period: 1/1/2023 to 12/31/2023

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Address: 301 Carl Road City: Sunnyvale Zip Code: 94089

**Source #:** S-11 Conveyor and S-5 Wood Chip **Source Name:** Solid Waste Transfer Station

**Processing Hoppers** 

Applicable	Regulation Title or	Compliance	Continuous	
Requirement	Description of Requirement	(Y/N)	or Intermittent	Days out of compliance / Comments
Part 5	Baghouse pressure monitoring requirement (Regulation 2-1-403)	Y	Continuous	N/A
Part 6	Baghouse Inspection and Maintenance Records (Regulation 2-1-403)	Y	Continuous	N/A
Part 7	Wood Waste Throughput Records (Cumulative Increase and Regulation 2-1-403)	Y	Continuous	N/A
BAAQMD Condition # 5370				
Part 1	Throughput limit (Cumulative Increase)	Y	Continuous	N/A
Part 2	Record Keeping (Cumulative Increase and Regulation 2-1-403)	Y	Continuous	N/A
Part 3	Visual monitoring and corrective action requirements (Regulation 2-1-403, 6-1-301, and 6-1-305)	Y	Continuous	N/A

Site #: A5905 Site Name: City of Sunnyvale Landfill and SMaRT Reporting Period: 1/1/2023 to 12/31/2023

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Address: 301 Carl Road City: Sunnyvale Zip Code: 94089

**Source #:** S-6 Wood Chip Screening Operation **Source Name:** Solid Waste Transfer Station

			Continuous	
Applicable	Regulation Title or	Compliance	or	
Requirement	Description of Requirement	(Y/N)	Intermittent	Days out of compliance / Comments
BAAQMD				
Regulation 6,	Particulate Matter – General Requirements (12/5/07)			
Rule 1				
6-1-301	Ringelmann No. 1 Limitation	Y	Continuous	N/A
6-1-305	Visible Particles	Y	Continuous	N/A
6-1-311	General Operations: emission limitation based on processing rate	Y	Continuous	N/A
6-1-401	Appearance of Emissions	Y	Continuous	N/A
SIP				
Regulation 6	Particulate Matter and Visible Emissions (9/4/98)			
6-301	Ringelmann No. 1 Limitation	Y	Continuous	N/A
6-305	Visible Particles	Y	Continuous	N/A
6-311	General Operations: emission limitation based on processing rate	Y	Continuous	N/A
6-401	Appearance of Emissions	Y	Continuous	N/A
BAAQMD				
Condition				
# 5371				
Part 1	Throughput limit (Cumulative Increase)	Y	Continuous	N/A
Part 2	Operating requirement (Cumulative Increase)	Y	Continuous	N/A
Part 3	Visual monitoring and corrective action requirements	Y	Continuous	N/A
	(Regulation 2-1-403, 6-1-301, and 6-1-305)			
Part 4	Record Keeping (Cumulative Increase and Regulation 2-1-403)	Y	Continuous	N/A

Site #: A5905 Site Name: City of Sunnyvale Landfill and SMaRT Reporting Period: 1/1/2023 to 12/31/2023

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			Continuous	
Applicable	Regulation Title or	Compliance	or	
Requirement	Description of Requirement	(Y/N)	Intermittent	Days out of compliance / Comments
BAAQMD				
Regulation 6,	Particulate Matter – General Requirements (12/5/07)			
Rule 1				
6-1-303	Ringelmann No. 2 Limitation	Y	Continuous	N/A
6-1-303.1	Internal combustion engines below 1500 cubic inches displacement or	Y	Continuous	N/A
	standby engines			
6-1-305	Visible Particles	Y	Continuous	N/A
6-1-310	Particulate grain loading limitation	Y	Continuous	N/A
6-1-401	Appearance of Emissions	Y	Continuous	N/A
SIP				
Regulation 6	Particulate Matter and Visible Emissions (9/4/98)			
6-1-303	Ringelmann No. 2 Limitation	Y	Continuous	N/A
6-1-303.1	Internal combustion engines below 1500 cubic inches displacement or	Y	Continuous	N/A
	standby engines			
6-305	Visible Particles	Y	Continuous	N/A
6-310	Particulate grain loading limitation	Y	Continuous	N/A
6-401	Appearance of Emissions	Y	Continuous	N/A
BAAQMD	Organic Compounds – General Provisions (6/15/94)			
Regulation 8,				
Rule 1				
8-1-110.2	Exemptions – internal combustion engine	Y	Continuous	N/A
BAAQMD	Inorganic Gaseous Pollutants – Sulfur Dioxide (3/15/95)			
Regulation 9,				
Rule 1				

Site #: A5905 Site Name: City of Sunnyvale Landfill and SMaRT Reporting Period: 1/1/2023 to 12/31/2023

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	State rume. Sond waste rum		Continuous	
Applicable	Regulation Title or	Compliance	or	
Requirement	Description of Requirement	(Y/N)	Intermittent	Days out of compliance / Comments
9-1-301	Limitations on Ground Level Concentrations	Y	Continuous	N/A
9-1-304	Liquid and Solid Fuels	Y	Continuous	N/A
BAAQMD	Inorganic Gaseous Pollutants - Nitrogen Oxides and Carbon			
Regulation 9,	Monoxide from Stationary Internal Combustion Engines (7/25/07)			
Rule 8				
9-8-110	Exemptions (from emission limits only)	Y	Continuous	N/A
9-8-110.5	For Emergency Standby Engines	Y	Continuous	N/A
9-8-330	Emergency Standby Engines, Hours of Operation	Y	Continuous	N/A
9-8-330.1	For Emergency Use	Y	Continuous	N/A
9-8-330.3	For Reliability-Related Activities	Y	Continuous	N/A
9-8-502	Record keeping	Y	Continuous	N/A
9-8-502.1	For Exempt Engines	Y	Continuous	N/A
9-8-530	Emergency Standby Engines, Monitoring and Record keeping	Y	Continuous	N/A
9-8-530.1	Hours of Operation (total)	Y	Continuous	N/A
9-8-530.2	Hours of Operation (emergency)	Y	Continuous	N/A
9-8-530.3	Nature of Each Emergency Condition	Y	Continuous	N/A
SIP	Inorganic Gaseous Pollutants - Nitrogen Oxides and Carbon			
Regulation 9,	Monoxide from Stationary Internal Combustion Engines (12/15/97)			
Rule 8				
9-8-110	Exemptions	Y	Continuous	N/A
9-8-110.2	For Liquid Fueled Engines	Y	Continuous	N/A
40 CFR	National Emission Standards for Hazardous Air Pollutants-			
Part 63,	General Provisions (9/13/10)			
Subpart A				

Site #: A5905 Site Name: City of Sunnyvale Landfill and SMaRT Reporting Period: 1/1/2023 to 12/31/2023

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			Continuous	
Applicable	Regulation Title or	Compliance	or	
Requirement	Description of Requirement	(Y/N)	Intermittent	Days out of compliance / Comments
63.4	Prohibited activities and circumvention	Y	Continuous	N/A
63.5	Preconstruction review and notification requirements	Y	Continuous	N/A
63.5(b)	Requirements for existing, newly constructed, and reconstructed sources	Y	Continuous	N/A
63.6	Compliance with standards and maintenance requirements	Y	Continuous	N/A
63.8	Monitoring requirements	Y	Continuous	N/A
63.10	Record keeping and reporting requirements	Y	Continuous	N/A
63.10(b)	General record keeping requirements	Y	Continuous	N/A
63.10(c)	Additional record keeping requirements for sources with continuous monitoring systems	Y	Continuous	N/A
63.10(d)	General reporting requirements	Y	Continuous	N/A
63.10(e)	Additional reporting requirements for sources with continuous monitoring systems	Y	Continuous	N/A
40 CFR	National Emissions Standards for Hazardous Air Pollutants for			
Part 63, Subpart ZZZZ	Stationary Reciprocating Internal Combustion Engines (RICE) (8/20/10)			
63.6585	Applicability	Y	Continuous	N/A
63.6585(a)	Applicable to stationary RICE	Y	Continuous	N/A
63.6585(c)	Applicable to area source of HAPs	Y	Continuous	N/A
63.6590	What parts of my plant does this subpart cover?	Y	Continuous	N/A
63.6590(a)	Affected source is any existing, new or reconstructed stationary RICE located at area source of HAP emission	Y	Continuous	N/A
63.6590(a)(1)	Existing stationary RICE is:	Y	Continuous	N/A

Site #: A5905 Site Name: City of Sunnyvale Landfill and SMaRT Reporting Period: 1/1/2023 to 12/31/2023

Station®, Environmental Services Department

Address: 301 Carl Road City: Sunnyvale Zip Code: 94089

			Continuous	
Applicable	Regulation Title or	Compliance	or	
Requirement	Description of Requirement	(Y/N)	Intermittent	Days out of compliance / Comments
63.6590(a)(1)	Existing stationary RICE at an area source of HAP emissions	Y	Continuous	N/A
(iii)				
63.6595	When do I have to comply with this subpart?	Y	Continuous	N/A
63.6595(a)	Compliance Date for affected sources	Y	Continuous	N/A
63.6595(a)(1)	Compliance Date for an existing stationary RICE located at an	Y	Continuous	N/A
	area source of HAP emissions			
63.6603	What emission limitations and operating limitations must I meet if I own	Y	Continuous	N/A
	or operate an existing stationary RICE located at an area source of HAP			
	emissions? See Table 2d			
63.6603(a)	Operating limitations for existing stationary RICE located at an area	Y	Continuous	N/A
	source of HAP emissions			
63.6625	What are my monitoring, installation, collection, operation, and	Y	Continuous	N/A
	maintenance requirements?			
63.6625(e)		Y	Continuous	N/A
63.6625(e)(3)	Operate and maintain the existing stationary RICE according to	Y	Continuous	N/A
	manufacturer's emission-related written instructions			
63.6625(f)	Install a non-resettable hour meter for an existing emergency	Y	Continuous	N/A
	stationary RICE located at an area source of HAP emissions			
63.6625(h)	Minimize existing stationary engine idle time, not to exceed 30	Y	Continuous	N/A
	minutes			
63.6640	How do I demonstrate continuous compliance with the emission	Y	Continuous	N/A
	limitations and operating limitations?			
63.6640(f)	Requirements for emergency stationary RICE	Y	Continuous	N/A
63.6640(f)(i)	No time limit on use during emergency situations	Y	Continuous	N/A

Site #: A5905 Site Name: City of Sunnyvale Landfill and SMaRT Reporting Period: 1/1/2023 to 12/31/2023

Station®, Environmental Services Department

Address: 301 Carl Road City: Sunnyvale Zip Code: 94089

	Bource 1 miles Bond Walle 11m		Continuous	
Applicable	Regulation Title or	Compliance	or	
Requirement	Description of Requirement	(Y/N)	Intermittent	Days out of compliance / Comments
63.6640(f)(ii)	Maintenance checks and readiness testing annual hour limit	Y	Continuous	N/A
63.6640(f)	Non-emergency operation annual hour limit	Y	Continuous	N/A
(iii)				
63.6645	What notifications must I submit and when?	Y	Continuous	N/A
63.6645(a)	Submit all notifications that apply	Y	Continuous	N/A
63.6645(a)(5)	Notification requirement do not apply for an existing stationary emergency RICE	Y	Continuous	N/A
63.6655	What Records must I keep?	Y	Continuous	N/A
63.6655(e)	Keep records of maintenance conducted	Y	Continuous	N/A
63.6655(e)(2)	Maintenance records for an existing stationary emergency RICE	Y	Continuous	N/A
63.6655(f)	Keep records of hours of operation using non-resettable fuel meter	Y	Continuous	N/A
	and document emergency hours and purpose of any other operation			
63.6655(f)(2)	Hours of Operation for an existing emergency RICE	Y	Continuous	N/A
63.6660	In what form and how long must I keep records?	Y	Continuous	N/A
63.6665	What parts of the general provisions apply to me?	Y	Continuous	N/A
Table 2d to	Requirements for Existing Stationary RICE located at Area Sources of	Y	Continuous	N/A
Part 63,	HAP Emissions			
Subpart				
ZZZZ				
Table 2d.4.a.	Schedule for oil and filter change	Y	Continuous	N/A
Table 2d.4.b.	Schedule for air cleaner inspection	Y	Continuous	N/A
Table 2d.4.c.	Schedule for hoses and belts inspection	Y	Continuous	N/A

Site #: A5905 Site Name: City of Sunnyvale Landfill and SMaRT Reporting Period: 1/1/2023 to 12/31/2023

Station®, Environmental Services Department

Address: 301 Carl Road City: Sunnyvale Zip Code: 94089

			Continuous	
Applicable	Regulation Title or	Compliance	or	
Requirement	Description of Requirement	(Y/N)	Intermittent	Days out of compliance / Comments
Table 6 to	Continuous Compliance With Emission Limitations, Operating	Y	Continuous	N/A
Part 63,	Limitations, Work Practices, and Management Practices			
Subpart				
ZZZZ				
Table 6.9.a.	Work or Management practices for existing emergency located at an	Y	Continuous	N/A
	area source of HAP emissions			
CCR Title	Airborne Toxic Control Measure for Stationary Compression			
17, Section	Ignition Engines (10/18/07)			
93115				
§93115.5	Fuel and Fuel Additive Requirements for New and In-Use Stationary CI	Y	Continuous	N/A
	Engines That Have a Rated Brake Horsepower of Greater Than (>50			
	bhp)			
93115.5(b)	Fuel requirements, in-use emergency standby diesel CI engines	Y	Continuous	N/A
§93115.6	Emergency Standby Diesel-Fueled CI Engine (>50 bhp) Operating	Y	Continuous	N/A
	Requirements and Emission Standards			
§93115.6(b)	For In-Use Emergency Standby Diesel Fueled CI Engines	Y	Continuous	N/A
§93115.6(b)	Emission Standards and Operating Requirements	Y	Continuous	N/A
(3)				
§93115.6(b)	Diesel PM Standards and Hours of Operation Limitations	Y	Continuous	N/A
(3)(A)				
§93115.6(b)	General Requirements	Y	Continuous	N/A
(3)(A)(1)				
93115.6(b)(3)	Reliability related operating time limitation	Y	Continuous	N/A
(A)(1)(a)				

Site #: A5905 Site Name: City of Sunnyvale Landfill and SMaRT Reporting Period: 1/1/2023 to 12/31/2023

Station®, Environmental Services Department

Address: 301 Carl Road City: Sunnyvale Zip Code: 94089

			Continuous	
Applicable	Regulation Title or	Compliance	or	
Requirement	Description of Requirement	(Y/N)	Intermittent	Days out of compliance / Comments
§93115.10	Record keeping, Reporting and Monitoring Requirements	Y	Continuous	N/A
§93115.10(d)	Monitoring Equipment	Y	Continuous	N/A
93115.10(d)	Non-resettable totalizing hour meter	Y	Continuous	N/A
(1)				
§93115.10(f)	Reporting Requirements for Emergency Standby-Engines	Y	Continuous	N/A
§93115.10(f)	Records and Monthly Summary	Y	Continuous	N/A
(1)				
§93115.10(f)	Records Retention and Availability	Y	Continuous	N/A
(2)				
BAAQMD				
Condition #				
22820				
Part 1	Operating Time Limitation	Y	Continuous	N/A
	(CCR, Title 17, Section 93115.6(b)(3)(A)(1)(a))			
Part 2	Other Operational Limitations	Y	Continuous	N/A
	(CCR, Title 17, Section 93115.6(b)(3)(A)(1)(a))			
Part 3	Meter Requirements (CCR, Title 17, Section 93115.10(d)(1))	Y	Continuous	N/A
Part 4	Record Keeping Requirements	Y	Continuous	N/A
	(CCR, Title 17, Section 93115.10(f) or Regulation 2-6-501)			

## Appendix E - BAAQMD Communication

City of Sunnyvale <u>www.scsengineers.com</u>



## **COMPLIANCE & ENFORCEMENT DIVISION**

### **Notification Form**

Reportable Compliance Activity (RCA)

See back of form for instructions $ ightarrow$						instructions →
1. REAKDOWN RELIEF: District Use Only BREAKDOWN REFERENCE #:						
2. MONITOR EXCESS EMISSION or EXCURSION: District Use Only REFERENCE #:						
3. MONITOR IS INOPERATIVE: District Use Only REFERENCE #:						
4. PRESSURE RELIEF DEVICE (PRD): District Use Only PRD REFERENCE #:						
SITE INF	ORMATION AND D	ESCRIPTI	ON INFORI	MATION (RE	EQUIRED	))
Company	City of Sunnyvale,	ESD, Solid	Waste Div.	Site #		5905
Address	Borregas Avenue and Caribbean Drive		an Drive	Source #		S-8
Reported by	William Theyskens			Phone #		408 730-7718
Indicated Excess				Fax #		
Allowable Limit			Averaging <sup>-</sup>	Time		
Start Time/Date	01:49, 11/8/22		Clear Time	02	2:30, 11/9/22	
Monitor/device type(s)	►CEM ►GLM ►Parame		tric ►P	RD	► Non-monitor	
Monitor description(s)						
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$						
<b>▶</b> psig <b>▶</b> pH	▶ <sup>0</sup> Fahrenh	eit		Other (desc	cribe)	
Event Description:  Rainfall on November 7th through 9th, 2022, was apparently responsible for an inability to transport Landfill Gas to the PGF or to the LFG Flare. Efforts to remove the "liquid plug" present at condensate trap CT-1, adjacent to main Valve V-1, were not immediately successful. After pumping liquid from CT-1, and noting a decrease in the liquid level, additional attempts were made to start the flare and continue to clean out the pipe network. The LFGF was then started successfully at approximately 02:30. At approximately 03:00, the switch was successfully made to the PGF.						
District Use Only						
Received by				ate	Tin	ne

- ✓ Check the Box numbers 1- 4 that apply to the RCA you are trying to report or request and read the detailed instructions.
- ✓ You will receive an ID # for each RCA you submit. In the case of a request for Breakdown Relief where multiple monitors are affected, you do not need to submit multiple forms, as long as all necessary information is given on one form. RCA reported during other than core business hours will be assigned an ID # the following working day. If you do not receive an ID #, it is your responsibility to contact the BAAQMD to get one.
- ✓ You may submit only one request for breakdown relief per form. However, you may submit multiple indicated excess, inoperative monitors and PRD reports on one form, provided that the start and end times given for the events in the required information section is inclusive of all events. Information on parameters exceeded, units of measurement and allowable limits can be provided in the event description box or when contacted by District staff with questions.
- ✓ Fill out the "Site Information and Description Information Required" areas of this form and email to rca@baagmd.gov
- ✓ A 30-day written follow-up report is required for Breakdown Requests and PRD Releases. Reports for these types of RCA must contain a quantification of emissions, the calculations used to derive the emissions, and their duration. Reference Breakdown Admissions Advisory dated 12/3/04. Send 30-day report letters to: BAAQMD Compliance and Enforcement Division, MAILSTOP: RCA 30-DAY REPORT, 375 Beale Street, Ste. 600 San Francisco, CA 94105. NOTE: You may have additional report requirements under Title V.

#### **Detailed Instructions**

#### Box 1: To Request Breakdown Relief (Regulations 1-112, 1-113, 1-208, 1-431, 1-432)

If you have an equipment malfunction (e.g.; breakdown) that leads to the release of air pollutants above the regulatory or your permitted levels, you may request relief from BAAQMD enforcement action.

- Check Box #1.
- NOTE: Start and end times given for these events in the required information section must be inclusive of all events.
- Fill out all the information in the "Site Information and Description Information (Required)" area of the form.
- Requests for breakdown relief may not be withdrawn and must be called in or faxed to the BAAQMD <u>immediately upon</u> discovery of an equipment malfunction.
- Receipt of an RCA ID# for a breakdown does not mean relief has been granted. An Inspector will visit your facility to determine compliance.

#### Box 2: Monitor Indicates Excess Emission or Excursion (Regulation 1-522.7, 1-523.3, 1-542)

When a BAAQMD-required monitor indicates an excess or excursion, you must report it to the BAAQMD.

- Check Box #2.
- Fill out all the information in the "Site Information and Description Information (Required)" area of the form.
- Any excess emission indicated by a CEM or excursion of a parametric monitor, shall be reported to the BAAQMD within 96 hours.
- Area concentration excesses over the limits prescribed in District regulations shall be reported to the BAAQMD within the next normal working day following the examination of data.

#### Box 3: Monitor Is Inoperative (Regulations 1-522, 1-523, 1-530)

When a BAAQMD-required monitor is inoperative for greater than 24 hours, you must report it to the BAAQMD.

- Check Box #3 only if inoperative for greater than 24 hours.
- Fill out all the information in the "Site Information and Description Information (Required)" area of the form.
- All reports of inoperative monitors must be reported by the following BAAQMD working day and additionally be cleared by a
  notification of resumption of monitoring. To notify the BAAQMD regarding the resumption of monitoring, do not send in a
  separate RCA form; call (415) 749-4979 and give the RCA ID #, date, and the time of resumption.
- Inoperative monitors (except parametric monitors) with downtime greater than 15 days must furnish proof of expedited repair in a follow-up report.

#### Box 4: Pressure Relief Device (PRD) Is Released (Regulation 8-28-401)

When a PRD at your refinery/chemical plant vents to the atmosphere, you must report it to the BAAQMD.

- Check Box #4 only if a pressure relief device is released.
- Separate RCA ID #'s can be applied to monitor(s) affected by a PRD by also checking Box #2 if other monitors record an excess or excursion.
- Fill out all the information in the "Site Information and Description Information (Required)" area of the form.
- All PRD release reports must be reported by the following BAAQMD working day.

Email to ►rca@baaqmd.gov - Telephone ► 415.749.4979 (M-F 8:30 am – 5:00 pm) - After core business hours, email or call ► 415.749.4666
Form Revision Dated: 12-12-18



SMaRT Station ® 301 Carl Road Sunnyvale, CA 94089 TDD/TYY 408-730-7501 sunnyvale.ca.gov

November 18, 2022

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

Re: 10-day/30-day Deviation Report for S-8 City of Sunnyvale Sanitary Landfill, Facility #A5905

To whom it may concern,

This Deviation Report is submitted in compliance with Provision I.F of the Title V-Major Facility Review Permit for Plant #A5905, which states that, "...all instances of non-compliance with permit shall be reported in writing to the District's Compliance and Enforcement Division within 10 calendar days of the discovery of the incident. Within 30 calendar days of the discovery of any incident of non-compliance, the facility shall submit a written report including the probable cause of non-compliance and any corrective or preventative actions." This report is intended to serve as the 10-day and 30-day Deviation Report, and the 30-day RCA report requirements for RCA #08N18 (Breakdown Relief) and #08N19 (Monitor Excess Emission or Excursion). The subject incident involves a relatively short-term shutdown of the Sunnyvale Landfill (Source S- 8) gas collection and control system (GCCS).

#### **Incident Description**

Rainfall from November 7th through November 9th is believed to have contributed to a higher than usual amount of LFG condensate generation, which appears to have contributed to issues encountered with the transport of LFG through the pipe network. At 0145 a blown transformer caused loss of power to the LFG and mixed gas (MG) flow meters. Temporary power was supplied to the LFG and MG flow meters at 1322. Although the MG meter showed flow the LFG showed zero flow. It was assumed the LFG meter was not functioning when in fact, it was functioning but LFG flows were too low for the meter to record. At 0242, LFG flows to PGF



started to decline, as indicated by an increase of MG flow to PGF. At 1556, one of the two PGF engines was secured due to a decline in LFG flow. Efforts were made to reduce the excess condensate in the pipe network in two locations in the field, which were suspected of restricting gas flow. Unfortunately, the resulting flow of gas was not sufficient to sustain PGF. It was later apparent that condensate trap CT-1E was full of condensate and backing up in the pipe network, causing a restriction of LFG flow. CT-1E is located directly in front of the LFGF station, where all LFG flow merges and is then directed to either the PGF or LFGF. The pump inside CT-1E had issues with pumping the large amounts of condensate as fast as it was coming into the trap. On 11/9/22 at 0915 the LFG field isolation valve was closed to allow the condensate level to be drawn down at CT-1E. At 1254 the field isolation valve was opened and unsuccessful efforts were made to start the PGF due to poor gas quality. The decision was made to start the LFGF. After a few attempts to start the LFGF, it was successfully started at 1313. At 1433, the LFGF was secured and #2 PGF was started. At 1454, #2 PGF was identified as being unstable, so it was taken offline and #1 PGF was started. At 1513 both the PGFs were in service at their normal 600kw output, signaling the gas system was back to normal operating mode.

Based on this data and the fact that it had rained for several days, we believe it is unlikely that a significant release of LFG would have occurred during the downtime.

Sincerely,

David Krueger

David Krueger Solid Waste Programs Division Manager

## 1108 110922\_10- and 30-day report

Final Audit Report 2022-11-19

Created: 2022-11-18

By: McKendra Lafferty (MLafferty@sunnyvale.ca.gov)

Status: Signed

Transaction ID: CBJCHBCAABAA6nLE4nzPIP7QPL7rXsGWJ7M8D9hweeV4

## "1108 110922\_10- and 30-day report" History

- Document created by McKendra Lafferty (MLafferty@sunnyvale.ca.gov) 2022-11-18 7:32:45 PM GMT
- Document emailed to David Krueger (dkrueger@sunnyvale.ca.gov) for signature 2022-11-18 7:33:07 PM GMT
- Email viewed by David Krueger (dkrueger@sunnyvale.ca.gov)
- Document e-signed by David Krueger (dkrueger@sunnyvale.ca.gov)
  Signature Date: 2022-11-19 0:48:15 AM GMT Time Source: server
- Agreement completed. 2022-11-19 - 0:48:15 AM GMT



## **COMPLIANCE & ENFORCEMENT DIVISION**

### **Notification Form**

Reportable Compliance Activity (RCA)

		S	ee back of form f	or instructions →		
1. REAKDOWN RELIEF: District Use Only BREAKDOWN REFERENCE #:						
2. MONITOR EXCESS EMISSION or EXCURSION: District Use Only REFERENCE #:						
3. MONITOR IS INOPERATIVE: District Use Only REFERENCE #:						
4. PRESSURE RELIEF DEVICE (PRD): District Use Only PRD REFERENCE #:						
SITE INF	ORMATION AND DESCRIPT	TION INFORM	MATION (REQUIR	RED)		
Company	City of Sunnyvale, ESD, Solid	Waste	Site #	5905		
Address	Borregas Avenue and Caribbean Drive		Source #	S-8		
Reported by	William Theyskens		Phone #	408 730-7718		
Indicated Excess	,		Fax #			
Allowable Limit			Averaging Time			
Start Time/Date	22:50; 31 December 2022		Clear Time			
Monitor/device type(s)	▶ CEM     ▶ GLM     ▶ Parame		tric ►PRD	► Non-monitor		
Monitor description(s)						
Parameter(s) exceeded or not functioning due to inoperation $\begin{array}{c ccccccccccccccccccccccccccccccccccc$						
Unit(s) of Measurement						
▶ppm ▶psig ▶pH	<ul><li>min/hr &gt; 20%</li><li>□ Fahrenheit</li></ul>		► inches H <sub>2</sub> O ► Other (describe)	►mmHg		
Event Description:			·			
Saturday (12/31/22) evening's rain event had a definite negative impact on the Landfill gas flow, with decreasing flows starting around 19:55 and dropping from 219 scfm to 144 ppm. Flow continued to drop through the night so condensate was pumped and flow increased to 200 scfm. PGF generator # 1 subsequently shut down at 22:50 due to poor gas quality, with LFG at 51 scfm. The heavy rains increased and at 02:00 on 1/1/23 LFG flow was fluctuating from 0 to 40 scfm.						
District Use Only						
Received by	21011130		ate	Time		

- ✓ Check the Box numbers 1- 4 that apply to the RCA you are trying to report or request and read the detailed instructions.
- ✓ You will receive an ID # for each RCA you submit. In the case of a request for Breakdown Relief where multiple monitors are affected, you do not need to submit multiple forms, as long as all necessary information is given on one form. RCA reported during other than core business hours will be assigned an ID # the following working day. If you do not receive an ID #, it is your responsibility to contact the BAAQMD to get one.
- ✓ You may submit only one request for breakdown relief per form. However, you may submit multiple indicated excess, inoperative monitors and PRD reports on one form, provided that the start and end times given for the events in the required information section is inclusive of all events. Information on parameters exceeded, units of measurement and allowable limits can be provided in the event description box or when contacted by District staff with questions.
- ✓ Fill out the "Site Information and Description Information Required" areas of this form and email to rca@baagmd.gov
- ✓ A 30-day written follow-up report is required for Breakdown Requests and PRD Releases. Reports for these types of RCA must contain a quantification of emissions, the calculations used to derive the emissions, and their duration. Reference Breakdown Admissions Advisory dated 12/3/04. Send 30-day report letters to: BAAQMD Compliance and Enforcement Division, MAILSTOP: RCA 30-DAY REPORT, 375 Beale Street, Ste. 600 San Francisco, CA 94105. NOTE: You may have additional report requirements under Title V.

#### **Detailed Instructions**

#### Box 1: To Request Breakdown Relief (Regulations 1-112, 1-113, 1-208, 1-431, 1-432)

If you have an equipment malfunction (e.g.; breakdown) that leads to the release of air pollutants above the regulatory or your permitted levels, you may request relief from BAAQMD enforcement action.

- Check Box #1.
- NOTE: Start and end times given for these events in the required information section must be inclusive of all events.
- Fill out all the information in the "Site Information and Description Information (Required)" area of the form.
- Requests for breakdown relief may not be withdrawn and must be called in or faxed to the BAAQMD <u>immediately upon</u> discovery of an equipment malfunction.
- Receipt of an RCA ID# for a breakdown does not mean relief has been granted. An Inspector will visit your facility to determine compliance.

#### Box 2: Monitor Indicates Excess Emission or Excursion (Regulation 1-522.7, 1-523.3, 1-542)

When a BAAQMD-required monitor indicates an excess or excursion, you must report it to the BAAQMD.

- Check Box #2.
- Fill out all the information in the "Site Information and Description Information (Required)" area of the form.
- Any excess emission indicated by a CEM or excursion of a parametric monitor, shall be reported to the BAAQMD within 96 hours.
- Area concentration excesses over the limits prescribed in District regulations shall be reported to the BAAQMD within the next normal working day following the examination of data.

#### Box 3: Monitor Is Inoperative (Regulations 1-522, 1-523, 1-530)

When a BAAQMD-required monitor is inoperative for greater than 24 hours, you must report it to the BAAQMD.

- Check Box #3 only if inoperative for greater than 24 hours.
- Fill out all the information in the "Site Information and Description Information (Required)" area of the form.
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  notification of resumption of monitoring. To notify the BAAQMD regarding the resumption of monitoring, do not send in a
  separate RCA form; call (415) 749-4979 and give the RCA ID #, date, and the time of resumption.
- Inoperative monitors (except parametric monitors) with downtime greater than 15 days must furnish proof of expedited repair in a follow-up report.

#### Box 4: Pressure Relief Device (PRD) Is Released (Regulation 8-28-401)

When a PRD at your refinery/chemical plant vents to the atmosphere, you must report it to the BAAQMD.

- Check Box #4 only if a pressure relief device is released.
- Separate RCA ID #'s can be applied to monitor(s) affected by a PRD by also checking Box #2 if other monitors record an excess or excursion.
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Email to ►rca@baaqmd.gov - Telephone ► 415.749.4979 (M-F 8:30 am – 5:00 pm) - After core business hours, email or call ► 415.749.4666
Form Revision Dated: 12-12-18



January 10, 2023

SMaRT Station \* 301 Carl Road Sunnyvale, CA 94089 TDD/TYY 408-730-7501 sunnyvale.ca.gov

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

Re: 10-day/30-day Deviation Report for S-8 City of Sunnyvale Sanitary Landfill, Facility #A5905 - RCA #08P76 (Breakdown Relief) and RCA #08P77 (Monitor Excess Emission or Excursion)

To whom it may concern,

This Deviation Report is submitted in compliance with Provision I.F of the Title V-Major Facility Review Permit for Plant #A5905, which states that, "...all instances of non-compliance with permit shall be reported in writing to the District's Compliance and Enforcement Division within 10 calendar days of the discovery of the incident. Within 30 calendar days of the discovery of any incident of non-compliance, the facility shall submit a written report including the probable cause of non-compliance and any corrective or preventative actions." This report is intended to serve as the 10-day and 30-day Deviation Report, and the 30-day RCA report requirements for RCA #08P76 (Breakdown Relief) and RCA #08P77 (Monitor Excess Emission or Excursion). The subject incident involves a moderate-term shutdown of the Sunnyvale Landfill (Source S-8) gas collection and control system (GCCS).

#### **Incident Description**

From 12/31/2022-1/2/2023, we received 5.38" of rainfall (per California Irrigation Management Information System (CIMIS)), which contributed to a higher than usual amount of landfill gas (LFG) condensate generation. As a result, we encountered issues with the transport of LFG through the pipe network.

During this RCA reporting period, the total downtime of the LFGF was 32 hours and 6 minutes. It began at 2302 on 12/31/22 and ended at 0708 on 1/2/23. During this duration, there were multiple short durations when the LFG Flare (LFGF) was running.

#### Background Information:

On 12/31/22 at 1955, LFG flows to the Power Generation Facility (PGF) engines started to decline, and gas flow continued to drop through 1/1/23.



Page 2 of 2

Furthermore, on 1/31/22, at 0200 due to the decreasing gas flow PGF #1shut down. Staff tried to pump out the LFG condensate line but were unable to keep up with the amount of condensate. Eventually, on 1/1/2023, at 1100, PGF#2 also went offline. Note that during this time period, the staff attempted to start the LFGF multiple times with little to no success. On 1/2/23, at 0708, the LFGF was back in service, with flow back to normal.

Based on this data, and the fact that it had rained for several days straight (5.38 inches during the three days of the RCA), we believe it is highly unlikely that a significant release of LFG through the landfill cover would have occurred during this downtime.

Sincerely,

Ramana Chinnakotla

Ramana Chinnakotla Environmental Services Director

cc: Joe Muehleck (BAAQMD), email

Attachment: Flow Chart

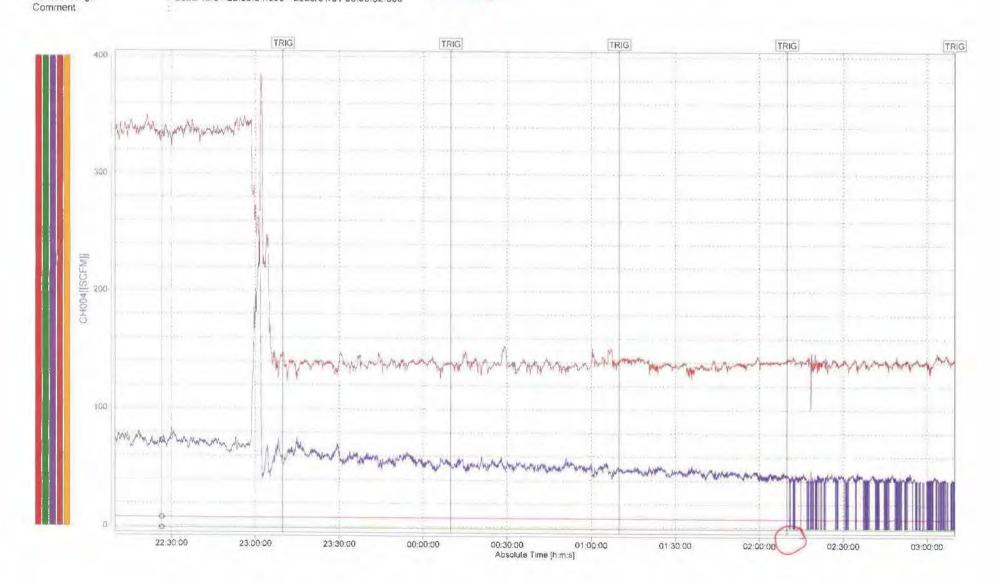
Heart of Silicon Valley

File Message File Name 080899\_221231\_220954.DAD,...,080903\_230101\_020954.DAD DX1000 Device Type Serial No. S5N408394 Time Correction None Starting Condition Auto **Dividing Condition** Auto Meas Ch. 6 Math Ch. : 0 Ext Ch. : 0 Printed Group

Printed Range

GROUP 1 2022/12/31 22:09:54.000 - 2023/01/01 03:09:52 000

Data Count 9000 Sampling Interval 2.000 sec Start Time 2022/12/31 22:09:54.000 Stop Time 2023/01/01 03:09:52 000 Trigger Time 2023/01/01 03:09:52:000 Trigger No. 8999 Damage Check Not Damaged Started by [Key In] Stopped by : [Running]



File Message 080904\_230101\_030954.DAD,....080911\_230101\_100954.DAD DX1000 File Name Device Type S5N408394 Serial No. Time Correction None Starting Condition Auto **Dividing Condition** Auto Meas Ch. : 6 Math Ch. : 0 Ext Ch. : 0

GROUP 1

Printed Group

Printed Range 2023/01/01 03:09:54.000 - 2023/01/01 11:09:52.000 Comment

Data Count : 14400 Sampling Interval : 2.000 sec

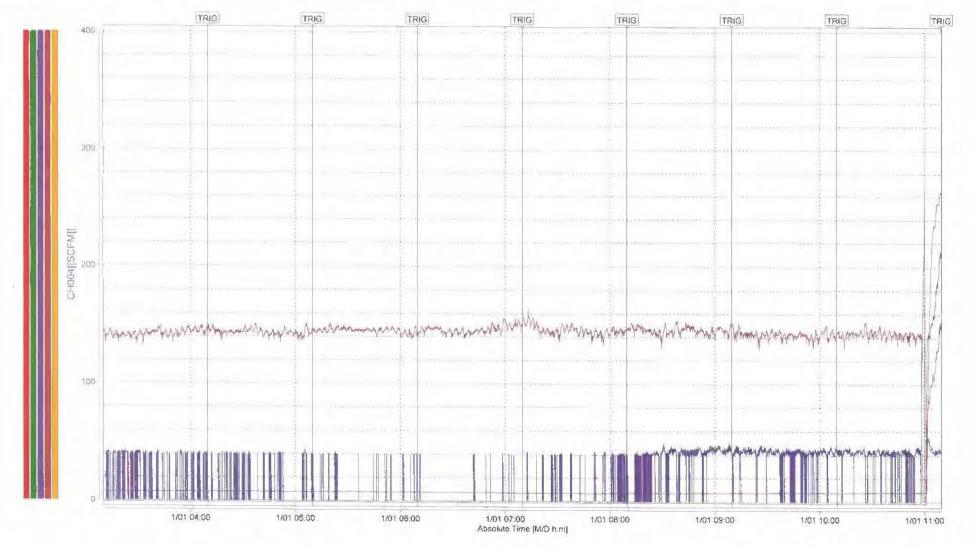
 Start Time
 2023/01/01 03:09:54:000

 Stop Time
 2023/01/01 11:09:52:000

 Trigger Time
 2023/01/01 11:09:52:000

Trigger No. 14399
Damage Check Not Damaged
Started by [ Key In ]
Stopped by [ Running ]



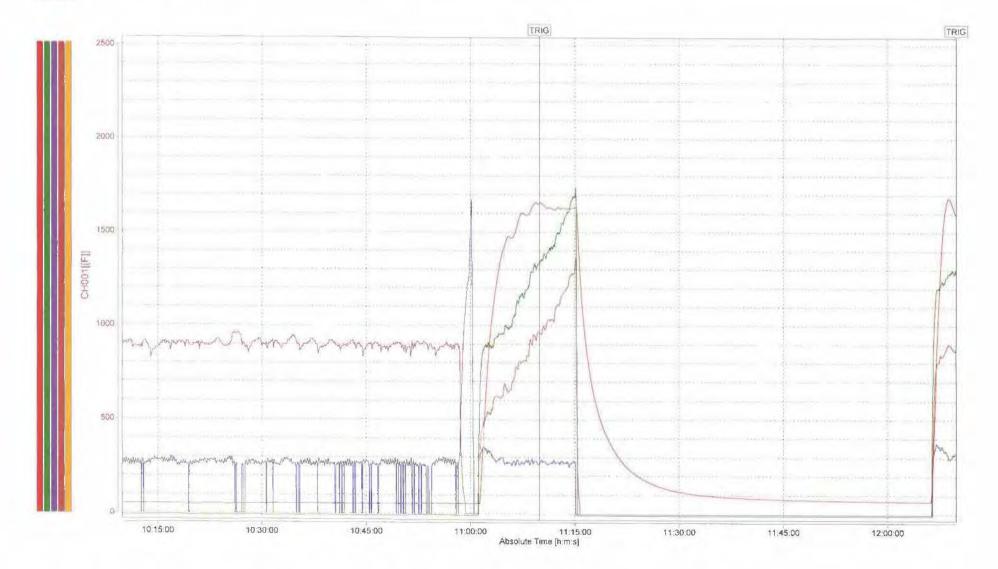


File Message File Name 080911\_230101\_100954.DAD, 080912\_230101\_110954.DAD Device Type DX1000 Serial No. S5N408394 Time Correction None Starting Condition Auto Dividing Condition Auto Meas Ch. 6 Math Ch. 0 Ext Ch. . 0

Printed Group Printed Range Comment GROUP 1 2023/01/01 10:09:64 000 2023/0

2023/01/01 10:09:54.000 - 2023/01/01 12:09:52.000

Data Count : 3600 2.000 sec Sampling Interval Start Time 2023/01/01 10:09:54.000 Stop Time 2023/01/01 12:09:52.000 Trigger Time 2023/01/01 12:09:52.000 Trigger No. 3599 Not Damaged
[ Key In ]
[ Running ] Damage Check Started by Stopped by

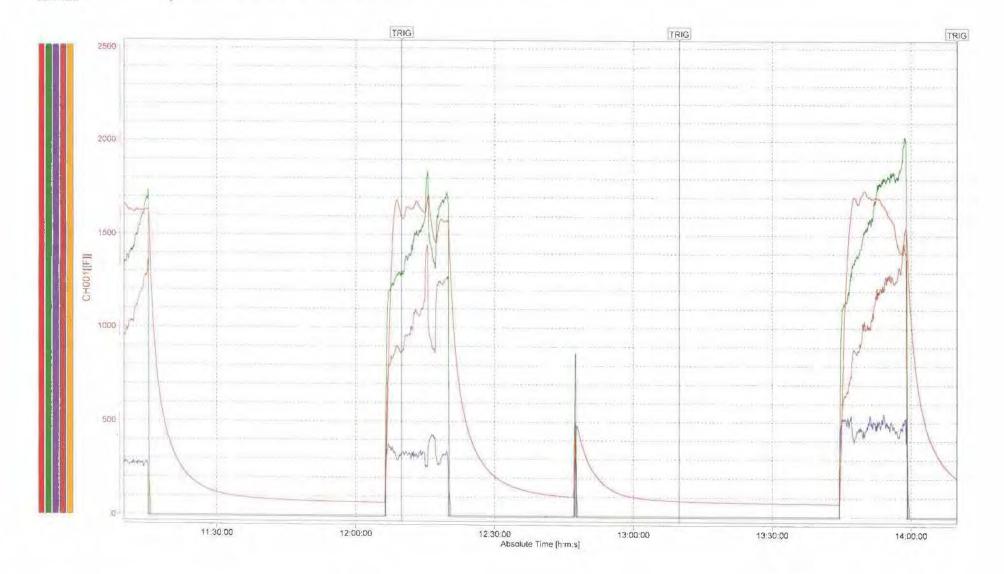


File Message File Name 080912\_230101\_110954.DAD,...,080914\_230101\_130954.DAD DX1000 Device Type Serial No. S5N408394 Time Correction None Starting Condition : Auto **Dividing Condition** : Auto Meas Ch. : 6 Math Ch. : 0 Ext Ch. . 0 Printed Group : GROUP 1

Data Count 5400 2.000 sec Sampling Interval 2023/01/01 11:09:54,000 Start Time Stop Time 2023/01/01 14:09:52.000 Trigger Time 2023/01/01 14:09:52.000 Trigger No. 5399 Damage Check Not Damaged Started by [Key In] Stopped by [Running]

Printed Range : 2023/01/01 11:09:54:000 - 2023/01/01 14:09:52:000

Comment



File Message File Name 080915\_230101\_140954.DAD,...,080919\_230101\_180954.DAD Device Type Serial No. DX1000 S5N408394 Time Correction None Starting Condition Auto Dividing Condition Auto Meas Ch. 6 : 0 Math Ch. Ext Ch.

Printed Group GROUP 1
Printed Range 2023/01/01

Printed Range : 2023/01/01 14:09:54:000 - 2023/01/01 19:09:52:000

Comment

 Data Count
 9000

 Sampling Interval
 2.000 sec

 Start Time
 2023/01/01 14:09:54.000

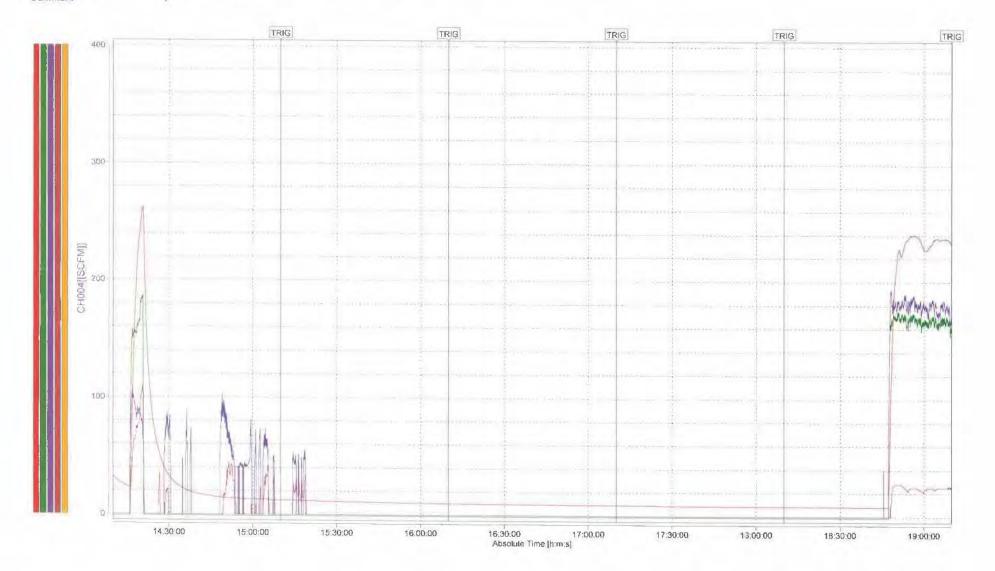
Stop Time 2023/01/01 19:09:52.000
Trigger Time 2023/01/01 19:09:52.000
Trigger No. 8999

Trigger No. 8999

Damage Check Not Damaged

Started by [ Key In ]

Stopped by [ Running ]

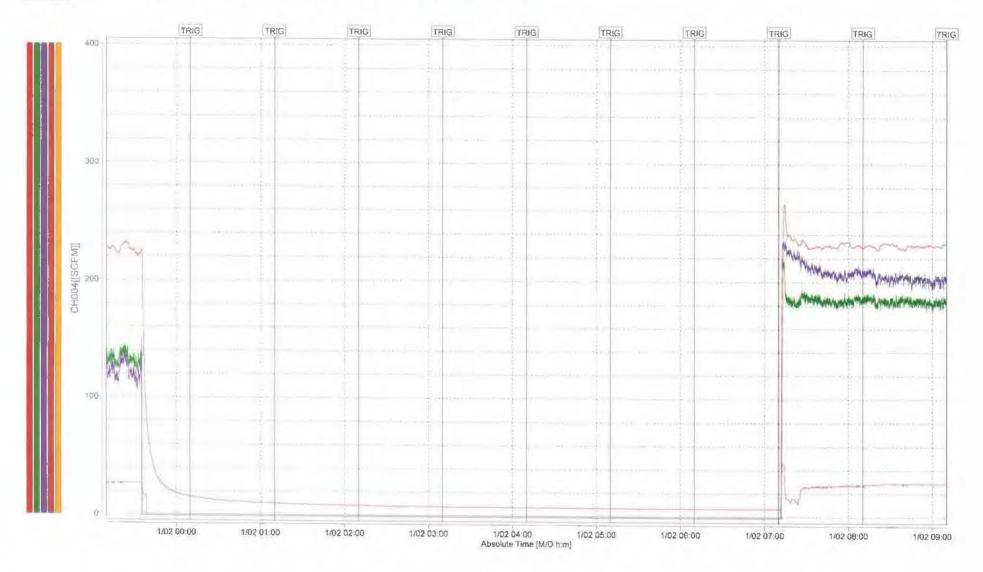


File Message File Name 080924 230101 230954.DAD .... 080933 230102 080954.DAD Device Type DX1000 Serial No. S5N408394 Time Correction None Starting Condition Auto Dividing Condition Auto Meas Ch. 6 Math Ch. 0 Ext Ch. 0

Data Count 18000 Sampling Interval 2.000 sec Start Time 2023/01/01 23:09:54 000 Stop Time 2023/01/02 09:09:52.000 Trigger Time 2023/01/02 09:09:52 000 Trigger No. 17999 Not Damaged Damage Check Started by [ Key In ] Stopped by [Running]

Printed Group Printed Range Comment GROUP 1 2023/01/01 23:09:54.000 - 2023/01/02 09:09:52.000

1-1 +0 1-2



# BAAQMD -FacilityA5905 RCA08P76 -10- and 30-day Deviation Report

Final Audit Report 2023-01-10

Created: 2023-01-10

By: McKendra Lafferty (MLafferty@sunnyvale.ca.gov)

Status: Signed

Transaction ID: CBJCHBCAABAA4QDAilygyyzzSz8ou4dT9jUp-T4YpV8g

## "BAAQMD -FacilityA5905 RCA08P76 -10- and 30-day Deviation Report" History

- Document created by McKendra Lafferty (MLafferty@sunnyvale.ca.gov) 2023-01-10 10:23:07 PM GMT
- Document emailed to Ramana Chinnakotla (rchinnakotla@sunnyvale.ca.gov) for signature 2023-01-10 10:23:58 PM GMT
- Email viewed by Ramana Chinnakotla (rchinnakotla@sunnyvale.ca.gov) 2023-01-10 - 10:58:07 PM GMT
- Document e-signed by Ramana Chinnakotla (rchinnakotla@sunnyvale.ca.gov)
  Signature Date: 2023-01-10 10:58:17 PM GMT Time Source: server
- Agreement completed. 2023-01-10 - 10:58:17 PM GMT



## **COMPLIANCE & ENFORCEMENT DIVISION**

### **Notification Form**

Reportable Compliance Activity (RCA)

See back of form for instructions →						
1. BREAKDOWN RELIEF: District Use Only BREAKDOWN REFERENCE #:						
2. MONITOR EXCESS EMISSION or EXCURSION: District Use Only REFERENCE #:						
3. MONITOR IS INOPERATIVE: District Use Only REFERENCE #:						
4. PRESSURE RELIEF DEVICE (PRD): District Use Only PRD REFERENCE #:						
SITE INF	ORMATION AND DESCRIPTION	N INFORMATION (REQUIF	RED)			
Company	City of Sunnyvale	Site #	5905			
Address	Borregas Avenue and Caribbea	Drive Source #	S-8			
Reported by	William Thevskens	Phone #	408 730-7718			
Indicated Excess		Fax #				
Allowable Limit		Averaging Time				
Start Time/Date	09:15; 9 January, 2023	Clear Time				
Monitor/device type(s)	►CEM ►GLM	► Parametric ► PRD	► Non-monitor			
Monitor description(s)						
Parameter(s) exceeded or not functioning due to inoperation  NO <sub>x</sub> SO <sub>2</sub> CO CO <sub>2</sub> H <sub>2</sub> S TRS NH <sub>3</sub> CO CO <sub>2</sub> CO CO <sub>2</sub> CO CO <sub>2</sub> CO CO <sub>3</sub> CO						
Unit(s) of Measurement		,	,			
▶ppm ▶ppb	min/hr > 20%	inches H₂O	<b>►</b> mmHg			
<b>▶</b> psig <b>▶</b> pH	▶ <sup>0</sup> Fahrenheit	► Other (describe)				
Power Generation Facility (PGF) generator shutdown, with the Landfill Gas Flare (LFGF) not starting initially. At 0:925 the LFGF was in service. At 0:9:37, the LFGF shutdown. The PGF shutdown appeared to be caused by a loss of LFG flow resulting from condensate build-up in condensate trap CT-1E, located just south of the LFGF. Efforts were made to pump down the condensate in CT-1E. The LFGF was subsequently reported to be back in service.						
District Use Only						
Received by	2101101 000	Date	Time			

- ✓ Check the Box numbers 1- 4 that apply to the RCA you are trying to report or request and read the detailed instructions.
- ✓ You will receive an ID # for each RCA you submit. In the case of a request for Breakdown Relief where multiple monitors are affected, you do not need to submit multiple forms, as long as all necessary information is given on one form. RCA reported during other than core business hours will be assigned an ID # the following working day. If you do not receive an ID #, it is your responsibility to contact the BAAQMD to get one.
- ✓ You may submit only one request for breakdown relief per form. However, you may submit multiple indicated excess, inoperative monitors and PRD reports on one form, provided that the start and end times given for the events in the required information section is inclusive of all events. Information on parameters exceeded, units of measurement and allowable limits can be provided in the event description box or when contacted by District staff with questions.
- ✓ Fill out the "Site Information and Description Information Required" areas of this form and email to rca@baagmd.gov
- ✓ A 30-day written follow-up report is required for Breakdown Requests and PRD Releases. Reports for these types of RCA must contain a quantification of emissions, the calculations used to derive the emissions, and their duration. Reference Breakdown Admissions Advisory dated 12/3/04. Send 30-day report letters to: BAAQMD Compliance and Enforcement Division, MAILSTOP: RCA 30-DAY REPORT, 375 Beale Street, Ste. 600 San Francisco, CA 94105. NOTE: You may have additional report requirements under Title V.

#### **Detailed Instructions**

#### Box 1: To Request Breakdown Relief (Regulations 1-112, 1-113, 1-208, 1-431, 1-432)

If you have an equipment malfunction (e.g.; breakdown) that leads to the release of air pollutants above the regulatory or your permitted levels, you may request relief from BAAQMD enforcement action.

- Check Box #1.
- NOTE: Start and end times given for these events in the required information section must be inclusive of all events.
- Fill out all the information in the "Site Information and Description Information (Required)" area of the form.
- Requests for breakdown relief may not be withdrawn and must be called in or faxed to the BAAQMD <u>immediately upon</u> discovery of an equipment malfunction.
- Receipt of an RCA ID# for a breakdown does not mean relief has been granted. An Inspector will visit your facility to determine compliance.

#### Box 2: Monitor Indicates Excess Emission or Excursion (Regulation 1-522.7, 1-523.3, 1-542)

When a BAAQMD-required monitor indicates an excess or excursion, you must report it to the BAAQMD.

- Check Box #2.
- Fill out all the information in the "Site Information and Description Information (Required)" area of the form.
- Any excess emission indicated by a CEM or excursion of a parametric monitor, shall be reported to the BAAQMD within 96 hours.
- Area concentration excesses over the limits prescribed in District regulations shall be reported to the BAAQMD within the next normal working day following the examination of data.

#### Box 3: Monitor Is Inoperative (Regulations 1-522, 1-523, 1-530)

When a BAAQMD-required monitor is inoperative for greater than 24 hours, you must report it to the BAAQMD.

- Check Box #3 only if inoperative for greater than 24 hours.
- Fill out all the information in the "Site Information and Description Information (Required)" area of the form.
- All reports of inoperative monitors must be reported by the following BAAQMD working day and additionally be cleared by a
  notification of resumption of monitoring. To notify the BAAQMD regarding the resumption of monitoring, do not send in a
  separate RCA form; call (415) 749-4979 and give the RCA ID #, date, and the time of resumption.
- Inoperative monitors (except parametric monitors) with downtime greater than 15 days must furnish proof of expedited repair in a follow-up report.

#### Box 4: Pressure Relief Device (PRD) Is Released (Regulation 8-28-401)

When a PRD at your refinery/chemical plant vents to the atmosphere, you must report it to the BAAQMD.

- Check Box #4 only if a pressure relief device is released.
- Separate RCA ID #'s can be applied to monitor(s) affected by a PRD by also checking Box #2 if other monitors record an excess or excursion.
- Fill out all the information in the "Site Information and Description Information (Required)" area of the form.
- All PRD release reports must be reported by the following BAAQMD working day.

Email to ►rca@baaqmd.gov - Telephone ► 415.749.4979 (M-F 8:30 am – 5:00 pm) - After core business hours, email or call ► 415.749.4666
Form Revision Dated: 12-12-18



January 13, 2023

Director of Compliance and Enforcement Bay Area Air Quality Management District 375 Beale Street, Suite 600 San Francisco, CA 94105 SMaRT Station ™ 301 Carl Road Sunnyvale, CA 94089 TDD/TYY 408-730-7501 sunnyvale.ca.gov

Re: 10-day/30-day Deviation Report for S-8 City of Sunnyvale Sanitary Landfill, Facility #A5905 - RCA #08P98 (Breakdown Relief) and RCA #08P99 (Monitor Excess Emission or Excursion)

To whom it may concern,

This Deviation Report is submitted in compliance with Provision I.F of the Title V-Major Facility Review Permit for Plant #A5905, which states that, "...all instances of non-compliance with permit shall be reported in writing to the District's Compliance and Enforcement Division within 10 calendar days of the discovery of the incident. Within 30 calendar days of the discovery of any incident of non-compliance, the facility shall submit a written report including the probable cause of non-compliance and any corrective or preventative actions." This report is intended to serve as the 10-day and 30-day Deviation Report, and the 30-day RCA report requirements for RCA #08P98 (Breakdown Relief) and RCA #08P99 (Monitor Excess Emission or Excursion). The subject incident involves a moderate-term shutdown of the Sunnyvale Landfill (Source S-8) gas collection and control system (GCCS).

#### **Incident Description**

From 1/9/23 - 1/11/23, we received 2.03" of rainfall (per California Irrigation Management Information System (CIMIS)) which is believed to have contributed to a higher than usual amount of landfill gas (LFG) condensate generation. As a result, we encountered issues with the transport of LFG through the pipe network. We are continuing to investigate the higher than usual volume of condensate and the frequency of blockages in the piping system.

On 1/9/23 at 0918 LFG flow was lost to the #2 PGF (note that the #1 PGF is out of service for maintenance). The loss of landfill gas flow was attributed to a buildup of condensate in condensate trap CT-1E, which caused blockage of LFG flow, and resulted in the shutting down of the generator. During this time period, landfill staff pumped condensate in an effort to



increase LFG flow, and the flow was resumed at 1502. At 1547, the LFGF was set up to switch over to the PGF, and at 1620 the PGF (one genset) was in service.

This RCA episode started at 0918 and ended at 1620 on 1/9/23, a total of 7 hours and 2 minutes. During this episode, there was a relatively short duration of approximately 45 minutes when the LFG Flare was running.

Based on the available rainfall data and the saturated landfill cover, we believe it is highly unlikely that a significant release of LFG through the landfill cover would have occurred during this downtime.

Sincerely,

Ramana Chinnakotla

Ramana Chinnakotla Environmental Services Director

cc: Joe Muehleck (BAAQMD), email

Attachment: Flow Chart

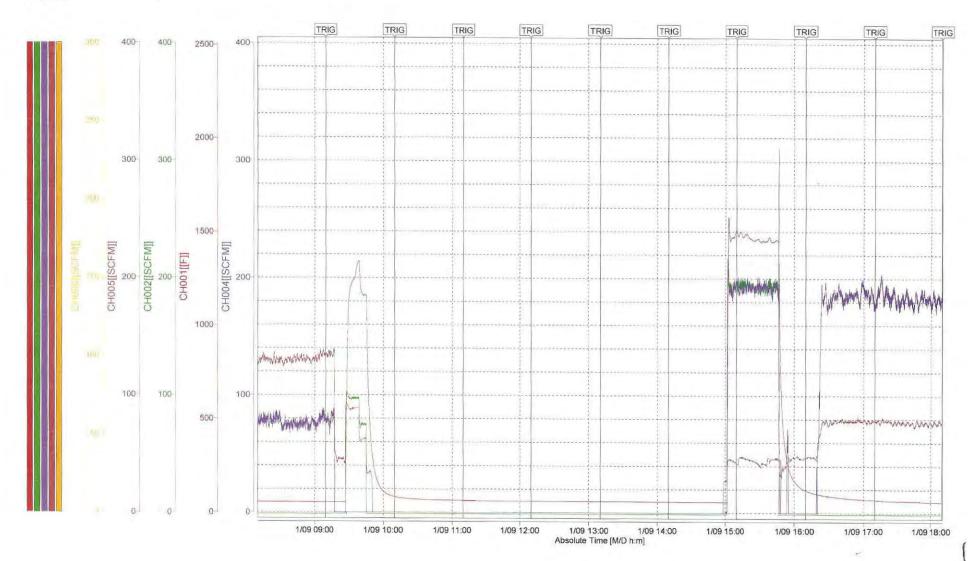
File Message File Name 081101\_230109\_080954.DAD,...,081110\_230109\_170954.DAD Device Type DX1000 Serial No. S5N408394 Time Correction None Starting Condition : Auto **Dividing Condition** : Auto Meas Ch. : 6 Math Ch. : 0 Ext Ch. : 0

Data Count : 18000 Sampling Interval : 2.000 sec Start Time : 2023/01/09 08:09:54.000 Stop Time : 2023/01/09 18:09:52.000 Trigger Time : 2023/01/09 18:09:52.000 Trigger No. : 17999 Damage Check : Not Damaged Started by : [ Key In ] Stopped by : [Running]

Printed Group : GROUP 1

Printed Range : 2023/01/09 08:09:54.000 - 2023/01/09 18:09:52.000

Comment



## **BAAQMD RCA report**

Final Audit Report 2023-01-13

Created: 2023-01-13

By: McKendra Lafferty (MLafferty@sunnyvale.ca.gov)

Status: Signed

Transaction ID: CBJCHBCAABAAnobDgeCeUBkB8flkt84s2cMQ1OfKAFZL

## "BAAQMD RCA report" History

- Document created by McKendra Lafferty (MLafferty@sunnyvale.ca.gov) 2023-01-13 8:43:19 PM GMT
- Document emailed to Ramana Chinnakotla (rchinnakotla@sunnyvale.ca.gov) for signature 2023-01-13 8:44:01 PM GMT
- Email viewed by Ramana Chinnakotla (rchinnakotla@sunnyvale.ca.gov)
- Document e-signed by Ramana Chinnakotla (rchinnakotla@sunnyvale.ca.gov)

  Signature Date: 2023-01-13 9:18:58 PM GMT Time Source: server
- Agreement completed. 2023-01-13 - 9:18:58 PM GMT



## **COMPLIANCE & ENFORCEMENT DIVISION**

### **Notification Form**

Reportable Compliance Activity (RCA)

		See back of form f	for instructions →
1. X BREAKDOV	NN RELIEF: District Use Only BREAK	DOWN REFERENCE	E#: 08Q12
2. X MONITOR E	EXCESS EMISSION or EXCURSION: D	istrict Use Only RE	FERENCE #:
3. MONITOR IS	S INOPERATIVE: District Use Only RE	FERENCE #:	
4. PRESSURE	RELIEF DEVICE (PRD): District Use	Only PRD REFERE	NCE #:
SITE INF	ORMATION AND DESCRIPTION INFO	RMATION (REQUIR	ED)
Company	City of Sunnyvale, ESD, Solid Waste	Site #	5905
Address	Borregas Avenue and Caribbean Drive	Source #	S-8
Reported by	William Theyskens	Phone #	408 730-7718
Indicated Excess		Fax #	
Allowable Limit		Averaging Time	
Start Time/Date	00:39/1/16/23	Clear Time	
Monitor/device type(s)	►CEM ►GLM ►Paran	netric ▶PRD	▶ Non-monitor
Monitor description(s)			
Parameter(s) exceeded of SO <sub>2</sub> NO <sub>x</sub> NO <sub>2</sub> Hydrocarbon Brea  Wind Direction	Opacity Lead	►H <sub>2</sub> S ►TRS  ►Gauge Pressure  ► Wind Spee	x ►Flow
Unit(s) of Measurement	Otodin	Othor (descri	De j
▶ppm ▶ppb	▶min/hr > 20%	l ►inches H₂O	▶mmHg
▶ psig ▶ pH	▶ <sup>0</sup> Fahrenheit	Other (describe)	
Event Description:			
2251, to between 0 and 40 engines were all put on Na again failed, with LFGF at	have a negative impact on landfill gas flow (LI 0 scfm at 0039. At 0140 PGF #2 started, but U atural Gas (NG). At 1:55, PGF Genset #2 shu 0 scfm. Condensate in CT-1E and in the LFG ed the PGF genset at 1448 hours, with it runn	JGP started dropping at utdown again. An attemple east header P-trap in f	0142. Main of to start the LFGF ront of Gate D
	District Use Only		
Received by		Date	Time



January 24, 2023

Director of Compliance and Enforcement Bay Area Air Quality Management District 375 Beale Street, Suite 600 San Francisco, CA 94105 SMaRT Station \* 301 Carl Road Sunnyvale, CA 94089 TDD/TYY 408-730-7501 sunnyvale.ca.gov

Re: 10-day/30-day Deviation Report for S-8 City of Sunnyvale Sanitary Landfill, Facility #A5905 - RCA #08Q12 (Breakdown Relief) and RCA #08Q13 (Monitor Excess Emission or Excursion)

To whom it may concern,

This Deviation Report is submitted in compliance with Provision I.F of the Title V-Major Facility Review Permit for Plant #A5905, which states that, "... all instances of non-compliance with permit shall be reported in writing to the District's Compliance and Enforcement Division within 10 calendar days of the discovery of the incident. Within 30 calendar days of the discovery of any incident of non-compliance, the facility shall submit a written report including the probable cause of non-compliance and any corrective or preventative actions." This report is intended to serve as the 10-day and 30-day Deviation Report, and the 30-day RCA report requirements for RCA #08Q12 (Breakdown Relief) and RCA #08Q13 (Monitor Excess Emission or Excursion). The subject incident involves a moderate-term shutdown of the Sunnyvale Landfill (Source S-8) gas collection and control system (GCCS).

#### **Incident Description**

From 1/16/23 - 1/18/23 we received 1.07" of rainfall (per California Irrigation Management Information System (CIMIS)) which is believed to have contributed to a higher than usual amount of landfill gas (LFG) condensate generation. As a result, we encountered issues with the transport of LFG through the pipe network. We are continuing to investigate the higher than usual volume of condensate and the frequency of blockages in the piping system.

On 1/16/23 at 00:39 the Power Generation Facility (PGF) shutdown due to loss of LFG flow. The loss of LFG flow was attributed to a buildup of condensate in the landfill gas collection system, which caused blockage of LFG flow, and resulted in the shutting down of the PGF. During this time period, landfill staff inspected condensate pumps and portions of the landfill gas collection system to try to determine where the blockage was located. Landfill staff hired a



contractor to perform a camera inspection of the landfill pipes in several locations. It was determined there was a blockage in condensate trap CT-7E. Staff immediately pumped condensate at this location in an effort to increase LFG flow. At 1247 on 1/18/23, the LFGF was in service. At 1421, the LFGF was set up to switch over to the PGF, and at 1443 the PGF was in service.

This RCA episode started at 00:39 on 1/16/23 and ended at 1443 on 1/18/23, a total of 61.07 hours. During this episode, there was a duration of approximately 1.92 hours when the LFG Flare was running.

Based on the available rainfall data and the saturated landfill cover, we believe it is highly unlikely that a significant release of LFG through the landfill cover would have occurred during this downtime.

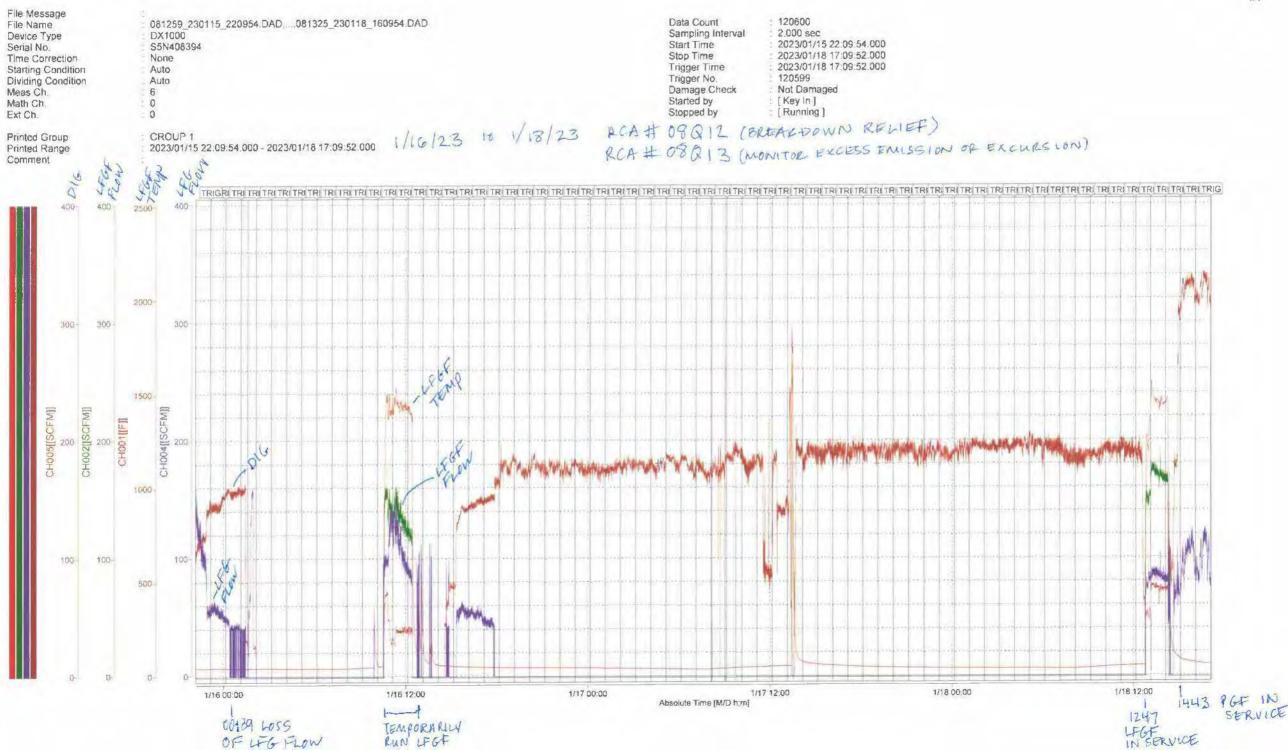
Sincerely,

Karen Gissibl

Environmental Programs Manager

cc: Joe Muehleck (BAAQMD), email

Attachment: Flow Chart



# BAAQMD- RCA 08Q12 and 08Q13\_10- and 30day report (1)

Final Audit Report 2023-01-24

Created: 2023-01-24

By: McKendra Lafferty (MLafferty@sunnyvale.ca.gov)

Status: Signed

Transaction ID: CBJCHBCAABAAeQKJ4CPRneEv\_4kPF9tbSX07Lu7LWaUL

# "BAAQMD- RCA 08Q12 and 08Q13\_10- and 30-day report (1)" History

- Document created by McKendra Lafferty (MLafferty@sunnyvale.ca.gov) 2023-01-24 8:48:00 PM GMT
- Document emailed to Karen Gissibl (kgissibl@sunnyvale.ca.gov) for signature 2023-01-24 8:48:40 PM GMT
- Email viewed by Karen Gissibl (kgissibl@sunnyvale.ca.gov) 2023-01-24 - 9:39:15 PM GMT
- Document e-signed by Karen Gissibl (kgissibl@sunnyvale.ca.gov)

  Signature Date: 2023-01-24 9:41:10 PM GMT Time Source: server
- Agreement completed. 2023-01-24 - 9:41:10 PM GMT



## **COMPLIANCE & ENFORCEMENT DIVISION**

### **Notification Form**

Reportable Compliance Activity (RCA)

		See back of form for instru	ctions →
1. X BREAKDOW	VN RELIEF: District Use Only BREAK	DOWN REFERENCE #:	
2. X MONITOR E	XCESS EMISSION or EXCURSION: D	istrict Use Only REFERENC	E #:
3. MONITOR IS	S INOPERATIVE: District Use Only RE	EFERENCE #:	
4. PRESSURE	RELIEF DEVICE (PRD): District Use	Only PRD REFERENCE #:	
SITE INFO	ORMATION AND DESCRIPTION INFO	RMATION (REQUIRED)	
Company	City of Sunnyvale, ESD, Solid Waste	Site #	
Address	Borregas Avenue and Caribbean Drive	Source #	
Reported by	William Theyskens	Phone #	
Indicated Excess		Fax #	
Allowable Limit		Averaging Time	
Start Time/Date	02:38/01/19/23	Clear Time 10:20/01	
Monitor/device type(s)	▶ CEM   ▶ GLM     ▶ Paran	metric ►PRD ►Noi	n-monitor
Monitor description(s)			
Parameter(s) exceeded of SO <sub>2</sub> NO <sub>x</sub> NO <sub>2</sub> Hydrocarbon Brea  Wind Direction  Unit(s) of Measurement	Opacity Lead	► H <sub>2</sub> S	►NH <sub>3</sub> ►Flow
▶ppm ▶ppb   ▶psig ▶pH	<ul><li>min/hr &gt; 20%</li><li>▶ oFahrenheit</li></ul>	<ul><li>▶ inches H<sub>2</sub>O</li><li>▶ Other (describe)</li></ul>	►mmHg
considerably. Genset #1 v pump condensate from the removed that LFG was ag	(LFG) from the field was lost. The LFG flow rewas still running on other fuel so there was not e Gas Collection and Control System (GCCS) gain being pulled from the landfill in significant diffill in significant quantities.	need to run the flare. Efforts conti ). At 1020 enough condensate had	inued to d been
	District Use Only		
Received by	210th 10t 000 Only	Date Time	

- ✓ Check the Box numbers 1- 4 that apply to the RCA you are trying to report or request and read the detailed instructions.
- ✓ You will receive an ID # for each RCA you submit. In the case of a request for Breakdown Relief where multiple monitors are affected, you do not need to submit multiple forms, as long as all necessary information is given on one form. RCA reported during other than core business hours will be assigned an ID # the following working day. If you do not receive an ID #, it is your responsibility to contact the BAAQMD to get one.
- ✓ You may submit only one request for breakdown relief per form. However, you may submit multiple indicated excess, inoperative monitors and PRD reports on one form, provided that the start and end times given for the events in the required information section is inclusive of all events. Information on parameters exceeded, units of measurement and allowable limits can be provided in the event description box or when contacted by District staff with questions.
- ✓ Fill out the "Site Information and Description Information Required" areas of this form and email to rca@baagmd.gov
- ✓ A 30-day written follow-up report is required for Breakdown Requests and PRD Releases. Reports for these types of RCA must contain a quantification of emissions, the calculations used to derive the emissions, and their duration. Reference Breakdown Admissions Advisory dated 12/3/04. Send 30-day report letters to: BAAQMD Compliance and Enforcement Division, MAILSTOP: RCA 30-DAY REPORT, 375 Beale Street, Ste. 600 San Francisco, CA 94105. NOTE: You may have additional report requirements under Title V.

#### **Detailed Instructions**

#### Box 1: To Request Breakdown Relief (Regulations 1-112, 1-113, 1-208, 1-431, 1-432)

If you have an equipment malfunction (e.g.; breakdown) that leads to the release of air pollutants above the regulatory or your permitted levels, you may request relief from BAAQMD enforcement action.

- Check Box #1.
- NOTE: Start and end times given for these events in the required information section must be inclusive of all events.
- Fill out all the information in the "Site Information and Description Information (Required)" area of the form.
- Requests for breakdown relief may not be withdrawn and must be called in or faxed to the BAAQMD <u>immediately upon</u> discovery of an equipment malfunction.
- Receipt of an RCA ID# for a breakdown does not mean relief has been granted. An Inspector will visit your facility to determine compliance.

#### Box 2: Monitor Indicates Excess Emission or Excursion (Regulation 1-522.7, 1-523.3, 1-542)

When a BAAQMD-required monitor indicates an excess or excursion, you must report it to the BAAQMD.

- Check Box #2.
- Fill out all the information in the "Site Information and Description Information (Required)" area of the form.
- Any excess emission indicated by a CEM or excursion of a parametric monitor, shall be reported to the BAAQMD within 96 hours.
- Area concentration excesses over the limits prescribed in District regulations shall be reported to the BAAQMD within the next normal working day following the examination of data.

#### Box 3: Monitor Is Inoperative (Regulations 1-522, 1-523, 1-530)

When a BAAQMD-required monitor is inoperative for greater than 24 hours, you must report it to the BAAQMD.

- Check Box #3 only if inoperative for greater than 24 hours.
- Fill out all the information in the "Site Information and Description Information (Required)" area of the form.
- All reports of inoperative monitors must be reported by the following BAAQMD working day and additionally be cleared by a
  notification of resumption of monitoring. To notify the BAAQMD regarding the resumption of monitoring, do not send in a
  separate RCA form; call (415) 749-4979 and give the RCA ID #, date, and the time of resumption.
- Inoperative monitors (except parametric monitors) with downtime greater than 15 days must furnish proof of expedited repair in a follow-up report.

#### Box 4: Pressure Relief Device (PRD) Is Released (Regulation 8-28-401)

When a PRD at your refinery/chemical plant vents to the atmosphere, you must report it to the BAAQMD.

- Check Box #4 only if a pressure relief device is released.
- Separate RCA ID #'s can be applied to monitor(s) affected by a PRD by also checking Box #2 if other monitors record an excess or excursion.
- Fill out all the information in the "Site Information and Description Information (Required)" area of the form.
- All PRD release reports must be reported by the following BAAQMD working day.

Email to ►rca@baaqmd.gov - Telephone ► 415.749.4979 (M-F 8:30 am – 5:00 pm) - After core business hours, email or call ► 415.749.4666 Form Revision Dated: 12-12-18



January 27, 2023

Director of Compliance and Enforcement Bay Area Air Quality Management District 375 Beale Street, Suite 600 San Francisco, CA 94105 SMaRT Station S 301 Carl Road Sunnyvale, CA 94089 TDD/TYY 408-730-7501 sunnyvale.ca.gov

Re: 10-day/30-day Deviation Report for S-8 City of Sunnyvale Sanitary Landfill, Facility #A5905 - RCA #08Q22 (Breakdown Relief) and RCA #08Q23 (Monitor Excess Emission or Excursion)

To whom it may concern,

This Deviation Report is submitted in compliance with Provision I.F of the Title V-Major Facility Review Permit for Plant #A5905, which states that, "... all instances of non-compliance with permit shall be reported in writing to the District's Compliance and Enforcement Division within 10 calendar days of the discovery of the incident. Within 30 calendar days of the discovery of any incident of non-compliance, the facility shall submit a written report including the probable cause of non-compliance and any corrective or preventative actions." This report is intended to serve as the 10-day and 30-day Deviation Report, and the 30-day RCA report requirements for RCA #08Q22 (Breakdown Relief) and RCA #08Q23 (Monitor Excess Emission or Excursion). The subject incident involves a relatively short-term shutdown of the Sunnyvale Landfill (Source S-8) gas collection and control system (GCCS).

#### **Incident Description**

Large quantities of rain were received at the landfill site for the month of January, 8.24" of rainfall (per California Irrigation Management and Information System (CIMIS)), which contributed to a higher than usual amount of landfill gas (LFG) condensate generation. As a result, we encountered issues with the transport of LFG through the pipe network. We are continuing to investigate the higher than usual volume of condensate and the frequency of blockages in the piping system.

On 1/19/23 at 0238 there was a loss of LFG flow. The loss of LFG flow was attributed to a buildup of condensate in the landfill gas collection system, which caused blockage of LFG flow, and resulted in the shutting down of the GCCS. The #1 PGF continued to operate on mixed gas (MG), a combination of digester gas and air blended natural gas. During this time period,



landfill staff inspected condensate pumps and areas of the landfill gas collection system to determine where the blockage was located. It was determined there was a blockage in condensate trap CT-7E. Staff immediately pumped condensate at this location in an effort to increase LFG flow. Staff replaced the pump in CT-7E with a new one. At 1020, there was sufficient LFG flow available to send to the #1 PGF. At 1140, the #2 PGF was placed in service and both engines were operating at normal output.

This RCA episode started at 0238 and ended at 1020 on 1/19/23, a total of 7.7 hours.

Based on the available rainfall data, we believe it is highly unlikely that a significant release of LFG through the landfill cover would have occurred during this downtime.

Sincerely,

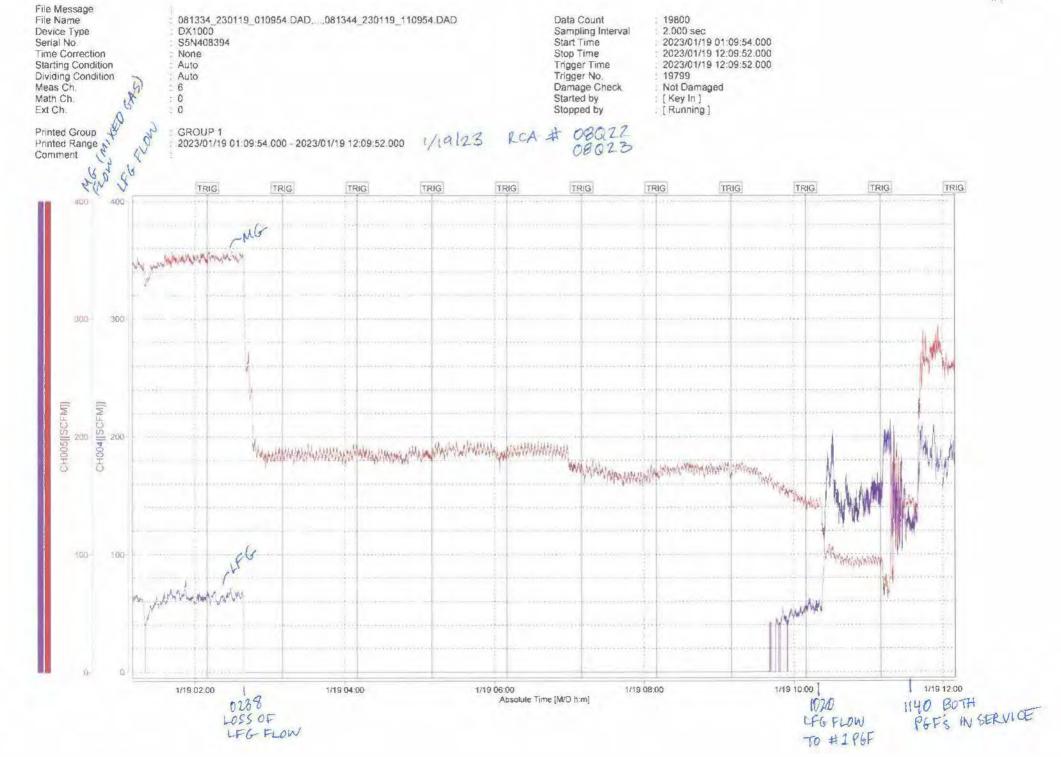
Karen Gissibl (Jan 27, 2023 09:08 P

Karen Gissibl

**Environmental Programs Manager** 

cc: Joe Muehleck (BAAQMD), email

Attachment: Flow Chart



# BAAQMD- RCA 08Q22 and 08Q23\_10- and 30day report1 (1)

Final Audit Report 2023-01-27

Created: 2023-01-27

By: McKendra Lafferty (MLafferty@sunnyvale.ca.gov)

Status: Signed

Transaction ID: CBJCHBCAABAA-YH7\_MH3\_uCULZAb3JJfwFkuGTDVevMA

# "BAAQMD- RCA 08Q22 and 08Q23\_10- and 30-day report1 (1)" History

- Document created by McKendra Lafferty (MLafferty@sunnyvale.ca.gov) 2023-01-27 - 4:52:28 PM GMT
- Document emailed to Karen Gissibl (kgissibl@sunnyvale.ca.gov) for signature 2023-01-27 4:53:22 PM GMT
- Email viewed by Karen Gissibl (kgissibl@sunnyvale.ca.gov) 2023-01-27 - 5:04:43 PM GMT
- Document e-signed by Karen Gissibl (kgissibl@sunnyvale.ca.gov)
  Signature Date: 2023-01-27 5:08:36 PM GMT Time Source: server
- Agreement completed. 2023-01-27 - 5:08:36 PM GMT



### **COMPLIANCE & ENFORCEMENT DIVISION**

### **Notification Form**

Reportable Compliance Activity (RCA)

		See back of form f	or instructions →
1. X BREAKDOW	IN RELIEF: District Use Only BREAKD	OWN REFERENCE	Ξ#:
2. X MONITOR E	XCESS EMISSION or EXCURSION: <i>Di</i> s	trict Use Only REI	FERENCE #:
3. MONITOR IS	S INOPERATIVE: District Use Only REF	ERENCE #:	
4. PRESSURE	RELIEF DEVICE (PRD): District Use C	Inly PRD REFEREI	NCE #:
SITE INFO	ORMATION AND DESCRIPTION INFOR	MATION (REQUIR	ED)
Company	City of Sunnyvale, ESD, Solid Waste	Site #	5905
Address	Borregas Avenue and Caribbean Drive	Source #	S-8
Reported by	Silviana Ruiz	Phone #	408 730-7545
Indicated Excess		Fax #	
Allowable Limit		Averaging Time	
Start Time/Date	20:50; 31 January 2023	Clear Time	21:57; 31 Jan. 2023
Monitor/device type(s)	►CEM ►GLM ►Parame	etric PRD	► Non-monitor
Monitor description(s)			
<ul> <li>NO<sub>x</sub></li> <li>SO<sub>2</sub></li> <li>H<sub>2</sub>C</li> <li>Hydrocarbon Brea</li> <li>Wind Direction</li> </ul>	Opacity ►Lead ►	H <sub>2</sub> S TRS Gauge Pressure Wind Spee Other (descri	x ► Flow
Unit(s) of Measurement  ▶ppm ▶psig ▶pH	<ul><li>min/hr &gt; 20%</li><li>▶ oFahrenheit</li></ul>	<ul><li>inches H₂O</li><li>Other (describe)</li></ul>	<u></u> ►mmHg
PG&E work. WPCP lost p	d maintenance to install new equipment. PGF volument at 2050 when 52-0 (main breaker to WPC to close 52-0 to restore power and at 2157 LF urs.	CP utility) open, due to	PG&E work. WPCP
	District Use Only		
Received by	•	)ate	Time

- ✓ Check the Box numbers 1- 4 that apply to the RCA you are trying to report or request and read the detailed instructions.
- ✓ You will receive an ID # for each RCA you submit. In the case of a request for Breakdown Relief where multiple monitors are affected, you do not need to submit multiple forms, as long as all necessary information is given on one form. RCA reported during other than core business hours will be assigned an ID # the following working day. If you do not receive an ID #, it is your responsibility to contact the BAAQMD to get one.
- ✓ You may submit only one request for breakdown relief per form. However, you may submit multiple indicated excess, inoperative monitors and PRD reports on one form, provided that the start and end times given for the events in the required information section is inclusive of all events. Information on parameters exceeded, units of measurement and allowable limits can be provided in the event description box or when contacted by District staff with questions.
- ✓ Fill out the "Site Information and Description Information Required" areas of this form and email to rca@baagmd.gov
- ✓ A 30-day written follow-up report is required for Breakdown Requests and PRD Releases. Reports for these types of RCA must contain a quantification of emissions, the calculations used to derive the emissions, and their duration. Reference Breakdown Admissions Advisory dated 12/3/04. Send 30-day report letters to: BAAQMD Compliance and Enforcement Division, MAILSTOP: RCA 30-DAY REPORT, 375 Beale Street, Ste. 600 San Francisco, CA 94105. NOTE: You may have additional report requirements under Title V.

#### **Detailed Instructions**

#### Box 1: To Request Breakdown Relief (Regulations 1-112, 1-113, 1-208, 1-431, 1-432)

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  notification of resumption of monitoring. To notify the BAAQMD regarding the resumption of monitoring, do not send in a
  separate RCA form; call (415) 749-4979 and give the RCA ID #, date, and the time of resumption.
- Inoperative monitors (except parametric monitors) with downtime greater than 15 days must furnish proof of expedited repair in a follow-up report.

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- All PRD release reports must be reported by the following BAAQMD working day.

Email to ►rca@baaqmd.gov - Telephone ► 415.749.4979 (M-F 8:30 am – 5:00 pm) - After core business hours, email or call ► 415.749.4666 Form Revision Dated: 12-12-18 February 9, 2023

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



**Re: 10-day/30-day Deviation Report for S-8 City of Sunnyvale Sanitary Landfill, Facility** #**A5905 -** RCA #08Q50 (Breakdown Relief) and RCA #08Q51 (Monitor Excess Emission or Excursion)

To whom it may concern,

This Deviation Report is submitted in compliance with Provision I.F of the Title V-Major Facility Review Permit for Plant #A5905, which states that, "...all instances of non-compliance with permit shall be reported in writing to the District's Compliance and Enforcement Division within 10 calendar days of the discovery of the incident. Within 30 calendar days of the discovery of any incident of non-compliance, the facility shall submit a written report including the probable cause of non-compliance and any corrective or preventative actions." This report is intended to serve as the 10-day and 30-day Deviation Report, and the 30-day RCA report requirements for RCA #08Q50 (Breakdown Relief) and RCA #08Q51 (Monitor Excess Emission or Excursion). The subject incident involves a relatively short-term shutdown of the Sunnyvale Landfill (Source S-8) gas collection and control system (GCCS).

#### **Incident Description**

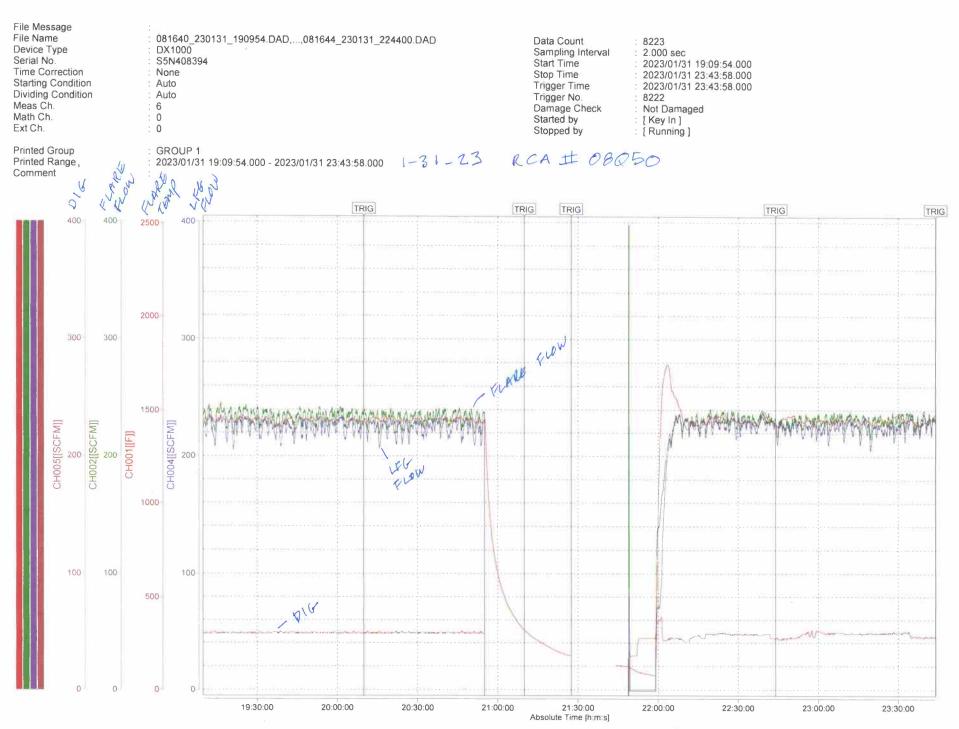
PG&E had planned new equipment installation and notified the city about the power outage on 1/31/2023. Typically, during such PGE projects, Water Pollution Control Plant (WPCP) main service is switched to another source and PGF's at the WPCP come offline. In anticipation of this planned activity, on 1/31/2023, the city prepared the PGF's, and the flare to be put in service. Unfortunately, during switching from the main service to the other source, an underground cable failed resulting in a power outage at 2051. As a result, the main utility breaker 52-0 to the WPCP opened and the whole facility lost power and flow to the landfill flare was lost. The flow was restored at 2157. Total downtime during this incident was 1hr and 6 minutes. Attached are documents to demonstrate the timeline and PGE explanation. Please reach out to me at 415-730-7791 or djain@sunnyvale.ca.gov if you have any questions.

Sincerely,

Deepti Jain
Deepti Jain

Environmental Programs Manager

cc: Joe Muehleck (BAAQMD), email



A5905 - RCA#08050 & 08051 - ATTACHMENT A-GAS FLOW GRAPH

Hi Bryan,

DEVCON is doing work out near your plant area. Unfortunately, Co Gen will need to come off line while your main service is switched to another source:

#### NOTICE OF PLANNED ELECTRIC SERVICE INTERRUPTION

#### CITY OF SUNNYVALE - WATER TREATMENT PLANT Co Gen only

PG&E will be installing new equipment which will impact one or more of your electric supply sources. Please be prepared to be without service on the following dates (weather permitting) and for the **estimated** times indicated:

DATE:

Tuesday, January 31, 2023

TIME:

8:00 am to 6:30 pm

AFFECTED SERVICE:

1444 BORREGAS AVE, SUNNYVALE

METER #:

Co Generator

1/31/23 AFW 23-0021555

TYPE B GEN. 1108/2 HAS DTT FOR SUNNYVALE WATER TREATMENT MUST COME OFFLINE WHEN 1108 IS OFFLOADED TO ANOTHER CIRCUIT

It is important to note the following: The distribution operator on the hot desk the day of will be making the customer contact to 408-398-4843

We appreciate your cooperation and thank you for your patience.

Sincerely.

7eri

Therese (Teri) M Vetere PGE Local Customer Relationship Manager De Anza & Central Coast Divisions 831-359-9933



www.pge.com/pspsupdates

We respect your privacy. Please review our privacy policy for more information. <a href="http://www.pge.com/en/about/company/privacy/customer/index.page">http://www.pge.com/en/about/company/privacy/customer/index.page</a>

From:

Vetere, Therese

To:

Silviana Ruiz Bryan Berdeen

Cc: Subject:

FW: PG&E - NOTICE OF PLANNED ELECTRIC SERVICE INTERRUPTION

Date:

Tuesday, February 7, 2023 1:53:21 PM

Attachments:

image001.png image002.png image003.png image004.png image005.png image006.png

Importance:

High

ATTN: Email is from an external source; Stop, Look, and Think before opening attachments or links.

Classification: Internal

Hello Silvana,

Please see below for outage response from our DO (distribution operations):

Yes the WWTP plant experienced an outage at 2051 on 1/31/23. During switching on the planned log an underground cable failed.

Let me know if you need anything more to complete your filing.

Sincerely,

#### 7eri

Therese (Teri) M Vetere PGE Local Customer Relationship Manager De Anza & Central Coast Divisions 831-359-9933



www.pge.com/pspsupdates

From: Silviana Ruiz <SRuiz@sunnyvale.ca.gov> Sent: Monday, February 6, 2023 2:27 PM

**To:** Vetere, Therese <TXVE@pge.com>; Bryan Berdeen <BBerdeen@sunnyvale.ca.gov>; Patrick Lenoir <PLenoir@sunnyvale.ca.gov>; Leonard Espinoza <lespinoza@sunnyvale.ca.gov>; Michael Herrera <mherrera@sunnyvale.ca.gov>



March 20, 2023

Mr. Jeff Gove
Director of Compliance and Enforcement
Bay Area Air Quality Management District
Compliance & Enforcement Division
375 Beale Street, Suite 600
San Francisco, CA 94105

SMaRT Station ® 301 Carl Road Sunnyvale, CA 94089 TDD/TYY 408-730-7501 sunnyvale.ca.gov

Subject: 10-Day Response Letter for Notice of Violation ID A60929, City of Sunnyvale Landfill, Facility #A5905

Dear Mr. Gove

The City of Sunnyvale (Sunnyvale) is submitting this letter in response to NOV #A60929 issued on March 8, 2023, in response to the less than the continuous operation of the Landfill Gas Collection and Control System (LFGCCS), S-8 at the closed Sunnyvale Landfill (Facility #A5905). The following is a summary of the incident and corrective/preventive actions, documented in more detail in the 10/30-day Reports attached herein.

Excessive rainfall received between November 8, 2022, - January 16, 2023, has contributed to higher than the usual amount of Landfill Gas (LFG) condensate generation at two of the Condensate traps, which led to issues encountered with the transport of LFG through the landfill gas pipe network.

Condensate traps CT-1E and CT-7E, which had issues, are located where the two main LFG headers merge from the west and east sides of the landfill before LFG is sent to the Power Generation Facility (PGF) or the LFG Flare (LFGF). The pneumatic pumps inside these two condensate traps are low pump rate pumps and typically function well during normal field conditions. Apparently, during the heavy rains, the pump rates were insufficient for the amount of condensate generated.

Information related to five TV Deviations mentioned in the NOV A60929 and immediate corrective actions taken is described in Table 1, attached as Attachment B.

To prevent similar incidents in the future, Sunnyvale is taking the following preventive measures:

• On 3/7/23, two large diaphragm pumps (high pump rates), were purchased as an emergency backup.



- Staff is working with a contractor to modify the existing ancillary equipment for these new pumps and work on a solution to the vapor lock issues.
- In addition to re-establishing a pump maintenance service schedule with the contractor, staff is working on hiring an emergency service contractor in near future.
- Staff is coordinating efforts with the City Water Pollution Control Plant (WPCP) staff to ensure available support during evenings and weekends to respond to LFGCCS issues. City is also considering hiring a part-time staff person to assist landfill staff.
- To study condensate-related issues with the LFGCCS, staff is developing a Request for Proposals for an LFGCCS assessment study.

We humbly request that you consider the following factors concerning the subject violation when you review the need for a penalty:

- We self-reported all these incidents to the assigned Air District Inspector as soon as we discovered them.
- The LFGCCS has been in operation for over 30 years, and this is the first violation in the history of the landfill due to unprecedented weather conditions.

If you have questions regarding this letter, please contact Deepti Jain at 408-730-7791 or me at 408-730-7785.

Sincerely,

Ramana Chinnakotla

Ramana Chinnakotla

**Environmental Services Director** 

Attachment A: Copy of the NOV#A60929

Attachment B: Table 1- Summary of TV deviations 7271, 7343, 7349, 7360, 7366

Attachment C: 10/30-day Deviation reports for S-8 (TV deviations 7271, 7343, 7349, 7360, 7366) Attachment D: Site map of CT-1E and CT-7E locations and photographs of diaphragm pumps

Cc: Joseph Muehleck, Senior Air Quality Inspector, BAAQMD Shikha Gupta, Solid Waste Programs Division Manager, Sunnyvale Deepti Jain, Environmental Programs Manager, Sunnyvale



# BAY AREA BAY AREA AIR QUALITY MANAGEMENT DISTRICT AIR QUALITY MANAGEMENT 375 Beale Street, Suite 600, San Francisco, CA 94105 (415) 749-5000

NOTICE OF VIOLATIC	No. A60929
ISSUED TO: City of Sunnyvale	
ADDRESS: 301 Carl Road	
CITY: Sunnyvale	STATE: CA ZIP: 94089
PHONE: (408 ) 730-7791	
▼ N# Mailing Address on F61	
OCCURRENCE	
NAME:	
ADDRESS:	Same As Above
	ZIP
SOURCE: S# 8 NAME: Landfill with	gas collection system
EMISSION PT: P# NAME:	
DATE: 11/8/22	TIME: HRS
REG 2 RULE 1 SEC 301	REG 2 RULE 1 SEC 302
No Authority to Construct	No Permit to Operate
REG 1 SEC 301	REG 2 RULESEC 307
H & S CODE - 41700 Public Nuisance	Failure to Meet Permit Condition
REG 5 SEC 301 Prohibited Open Burning	REG 6 RULE 1 SEC 301 Excessive Visible Emissions
▼ REG 8 RULE 34 SECTION	ON 301.1 CODE
REG RULE SECTION	
	3.1
Details: Less than continuous LGCS operation	(TV Deviations 7271, 7343, 7349, 7360, 7366)
RECIPIENT NAME: Deepti Jain  TITLE: Environmental Programs Ma	anager
SIGNING THIS NOTICE IS NOT	
AN ADMISSION OF GUILT X	Deepte Jain
DESCRIPTION OF THE IMMEDIAT TAKEN TO PREVENT CONTINUED	TANTIAL PENALTY, YOUR RESPONSE
ISSUED BY: J. Muehleck (issued via email)	INSP #
DATE: 3/8/23	TIME: 1015 HRS MAILED

PLEASE PRESS HARD

## INSTRUCTIONS

#### PERMIT VIOLATIONS - (REG 2, RULE 1, SECTION 301 AND/OR 302)

Within 30 days, a permit application must be submitted to the District's Permit Division. The permit application must reference the Violation Notice Number Shown on the front of this notice. If either the Violation Notice Number is not referenced or no permit application is received, then this matter will be referred to the District's Legal Department for legal action. Your response does not preclude further legal action.

If there are any questions regarding the submission of a Permit Application, call the Permit Services Division at (415) 749-4990.

#### ALL OTHER VIOLATIONS

Within 10 days, return a copy of this notice with a written description of the corrective action you have taken to prevent continued or recurrent violation. Immediate corrective action must be taken to stop the violation. This violation is subject to substantial penalty. Your response does not preclude further legal action.

A variance should be sought if it is necessary to continue to operate in violation of District Regulations. For information on eligiblity for, or filing of, a variance, call (415) 749-5073.

			Table: Notice of Violation	#A60929 - S	Table: Notice of Violation #A60929 - Summary of Title V Deviations
Date(s) of Occurrence	TV Deviation #	ΑĞ	Root Cause	Rain (Inches)	Timeline Information
11/8/22 -	7271	34.52	Chart recorder lost power due to a blown transformer. Heavy rains caused loss of flow due to condensate blockage at CT-1E.	1.91	Power restored to chart recorder but LFG flow not indicated; condensate due to heavy rains blocked gas flow. On 11/8, CT-1E and CT-7E pumps were inspected and appeared to be ok. A p-trap, connected to header was pumped down, still no flow. On 11/9, CT-1E was pumped down and flow restored.
12/31/22 - 1/2/23*	7343	26.43**	Heavy rains caused loss of flow due to condensate blockage at CT-1E.	5.38	on 1/1/23, several attempts were made to manually pump condensate and to start LFG flare. A different pump (diaphragm pump) placed in service at CT-1E. Flow restored. Pump contractor called on site to check all condensate pumps.
1/9/2023	7349	6.28**	Heavy rains caused loss of flow due to condensate blockage at CT-1E.	1.35	Perform inspection on pump and it appears the pumps in the condensate sumps are experiencing a vapor lock (no space to exhaust) due to the high water level in the trap. A different pump was used to manually pump condensate. Flow restored after continual pumping of condensate.
1/16/23 - 1/18/23	7360	59.01**	Heavy rains caused loss of flow due to condensate blockage at CT-	1.07	Hired contractor to conduct camera inspection of pipes in several sections of the landfill. Found blockage at CT-7E. Inspected pumps and manually pumped and restored flow as needed. A new diaphragm pump was purchased on 1/12 (before this RCA event) but the pump was not received until 1/19 due to shipping delays.
1/19/2023	7366	7.7	Heavy rains caused loss of flow due to condensate blockage at CT-7E.	0.03**	On 1/19, new pump was installed at CT-7E. Flow restored after manually pumping condensate. Inspected and repaired pump.

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Notes:
\*RCA Form submittal notates start of breakdown on 12/31/22 at 22:50. Actual start of breakdown (loss of flow) was on 1/1/23 at approximately 0200.
\*\*Duration of landfill gas flare operation subtracted from reported downtime in 10 and 30 day reporting.
\*\*\*Previous day (1/18/23) rain 0.27 inches
Rain data source: California Irrigation Management and Information System

### **Attachment C - Five Deviation Reports**



SMaRT Station \* 301 Carl Road Sunnyvale, CA 94089 TDD/TYY 408-730-7501 sunnyvale.ca.gov

November 18, 2022

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

Re: 10-day/30-day Deviation Report for S-8 City of Sunnyvale Sanitary Landfill, Facility #A5905

To whom it may concern,

This Deviation Report is submitted in compliance with Provision I.F of the Title V-Major Facility Review Permit for Plant #A5905, which states that, "...all instances of non-compliance with permit shall be reported in writing to the District's Compliance and Enforcement Division within 10 calendar days of the discovery of the incident. Within 30 calendar days of the discovery of any incident of non-compliance, the facility shall submit a written report including the probable cause of non-compliance and any corrective or preventative actions." This report is intended to serve as the 10-day and 30-day Deviation Report, and the 30-day RCA report requirements for RCA #08N18 (Breakdown Relief) and #08N19 (Monitor Excess Emission or Excursion). The subject incident involves a relatively short-term shutdown of the Sunnyvale Landfill (Source S-8) gas collection and control system (GCCS).

#### **Incident Description**

Rainfall from November 7th through November 9th is believed to have contributed to a higher than usual amount of LFG condensate generation, which appears to have contributed to issues encountered with the transport of LFG through the pipe network. At 0145 a blown transformer caused loss of power to the LFG and mixed gas (MG) flow meters. Temporary power was supplied to the LFG and MG flow meters at 1322. Although the MG meter showed flow the LFG showed zero flow. It was assumed the LFG meter was not functioning when in fact, it was functioning but LFG flows were too low for the meter to record. At 0242, LFG flows to PGF



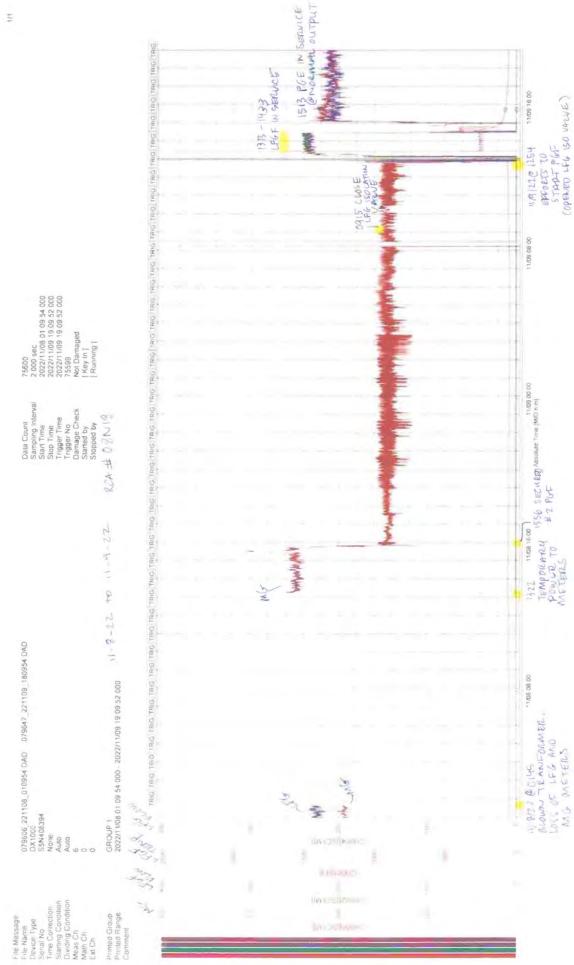
started to decline, as indicated by an increase of MG flow to PGF. At 1556, one of the two PGF engines was secured due to a decline in LFG flow. Efforts were made to reduce the excess condensate in the pipe network in two locations in the field, which were suspected of restricting gas flow. Unfortunately, the resulting flow of gas was not sufficient to sustain PGF. It was later apparent that condensate trap CT-1E was full of condensate and backing up in the pipe network, causing a restriction of LFG flow. CT-1E is located directly in front of the LFGF station, where all LFG flow merges and is then directed to either the PGF or LFGF. The pump inside CT-1E had issues with pumping the large amounts of condensate as fast as it was coming into the trap. On 11/9/22 at 0915 the LFG field isolation valve was closed to allow the condensate level to be drawn down at CT-1E. At 1254 the field isolation valve was opened and unsuccessful efforts were made to start the PGF due to poor gas quality. The decision was made to start the LFGF. After a few attempts to start the LFGF, it was successfully started at 1313. At 1433, the LFGF was secured and #2 PGF was started. At 1454, #2 PGF was identified as being unstable, so it was taken offline and #1 PGF was started. At 1513 both the PGFs were in service at their normal 600kw output, signaling the gas system was back to normal operating mode.

Based on this data and the fact that it had rained for several days, we believe it is unlikely that a significant release of LFG would have occurred during the downtime.

Sincerely,

David Krueger

David Krueger Solid Waste Programs Division Manager



# 1108 110922\_10- and 30-day report

Final Audit Report

Created: 2022-11-18

By: McKendra Lafferty (MLafferty@sunnyvale.ca.gov)

Status:

Transaction ID: CBJCHBCAABAA6nLE4nzPIP7QPL7rXsGWJ7M8D9hweeV4

# "1108 110922\_10- and 30-day report" History

- Document created by McKendra Lafferty (MLafferty@sunnyvale.ca.gov) 2022-11-18 - 7:32:45 PM GMT
- Document emailed to David Krueger (dkrueger@sunnyvale.ca.gov) for signature 2022-11-18 - 7:33:07 PM GMT
- Email viewed by David Krueger (dkrueger@sunnyvale.ca.gov) 2022-11-19 - 0:47:50 AM GMT
- Document e-signed by David Krueger (dkrueger@sunnyvale.ca.gov) Signature Date: 2022-11-19 - 0:48;15 AM GMT - Time Source: server
- Agreement completed. 2022-11-19 - 0:48:15 AM GMT



January 10, 2023

Director of Compliance and Enforcement Bay Area Air Quality Management District 375 Beale Street, Suite 600 San Francisco, CA 94105 SMaRT Station
301 Carl Road
Sunnyvale, CA 94089
TDD/TYY 408-730-7501
sunnyvale, ca.gov

Re: 10-day/30-day Deviation Report for S-8 City of Sunnyvale Sanitary Landfill, Facility #A5905 - RCA #08P76 (Breakdown Relief) and RCA #08P77 (Monitor Excess Emission or Excursion)

To whom it may concern,

This Deviation Report is submitted in compliance with Provision I.F of the Title V-Major Facility Review Permit for Plant #A5905, which states that, "...all instances of non-compliance with permit shall be reported in writing to the District's Compliance and Enforcement Division within 10 calendar days of the discovery of the incident. Within 30 calendar days of the discovery of any incident of non-compliance, the facility shall submit a written report including the probable cause of non-compliance and any corrective or preventative actions." This report is intended to serve as the 10-day and 30-day Deviation Report, and the 30-day RCA report requirements for RCA #08P76 (Breakdown Relief) and RCA #08P77 (Monitor Excess Emission or Excursion). The subject incident involves a moderate-term shutdown of the Sunnyvale Landfill (Source S-8) gas collection and control system (GCCS).

#### **Incident Description**

From 12/31/2022-1/2/2023, we received 5.38" of rainfall (per California Irrigation Management Information System (CIMIS)), which contributed to a higher than usual amount of landfill gas (LFG) condensate generation. As a result, we encountered issues with the transport of LFG through the pipe network.

During this RCA reporting period, the total downtime of the LFGF was 32 hours and 6 minutes. It began at 2302 on 12/31/22 and ended at 0708 on 1/2/23. During this duration, there were multiple short durations when the LFG Flare (LFGF) was running.

#### Background Information:

On 12/31/22 at 1955, LFG flows to the Power Generation Facility (PGF) engines started to decline, and gas flow continued to drop through 1/1/23.



Furthermore, on 1/31/22, at 0200 due to the decreasing gas flow PGF #1shut down. Staff tried to pump out the LFG condensate line but were unable to keep up with the amount of condensate. Eventually, on 1/1/2023, at 1100, PGF#2 also went offline. Note that during this time period, the staff attempted to start the LFGF multiple times with little to no success. On 1/2/23, at 0708, the LFGF was back in service, with flow back to normal.

Based on this data, and the fact that it had rained for several days straight (5.38 inches during the three days of the RCA), we believe it is highly unlikely that a significant release of LFG through the landfill cover would have occurred during this downtime.

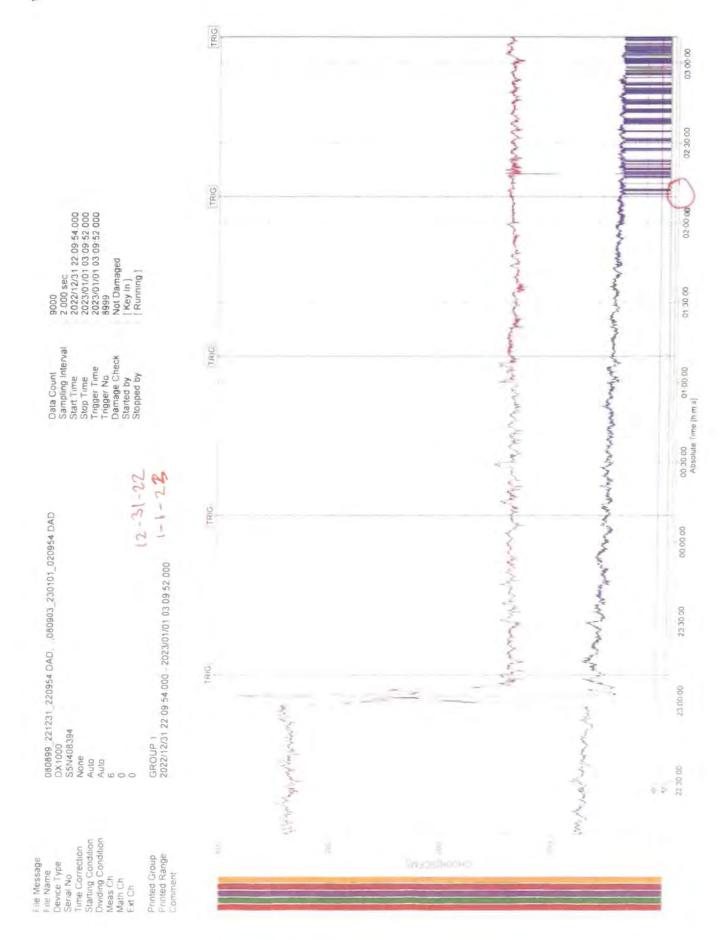
Sincerely,

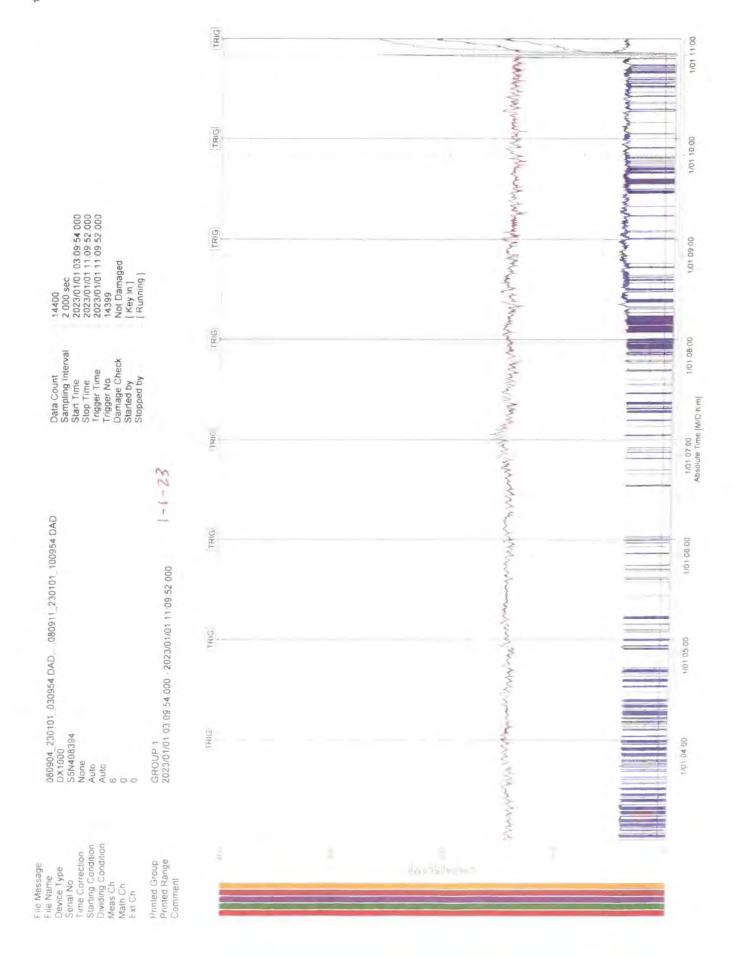
Ramana Chinnakotla

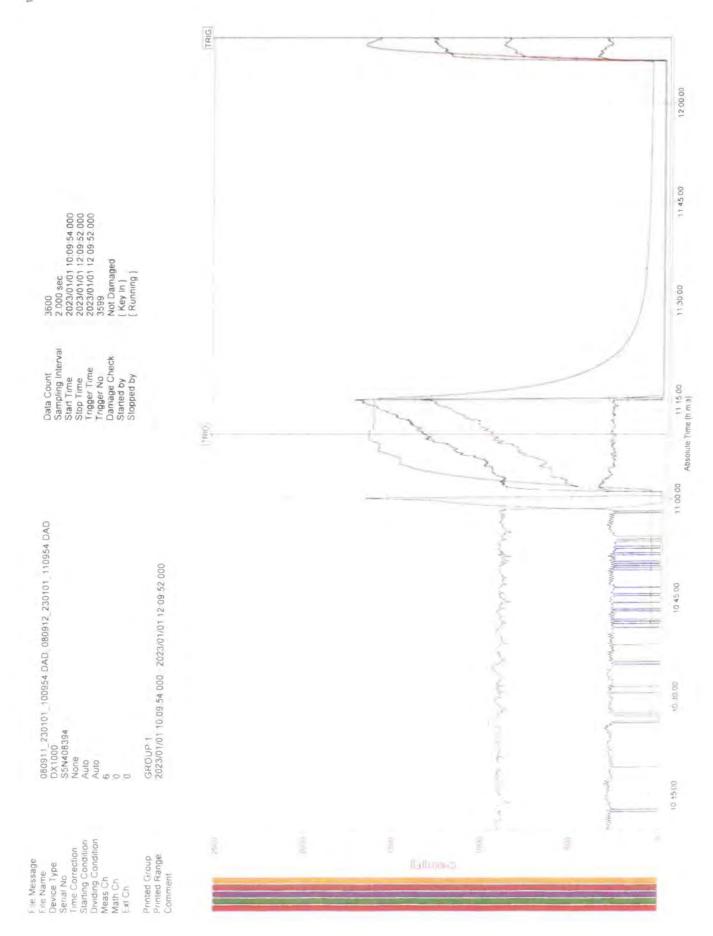
Ramana Chinnakotla Environmental Services Director

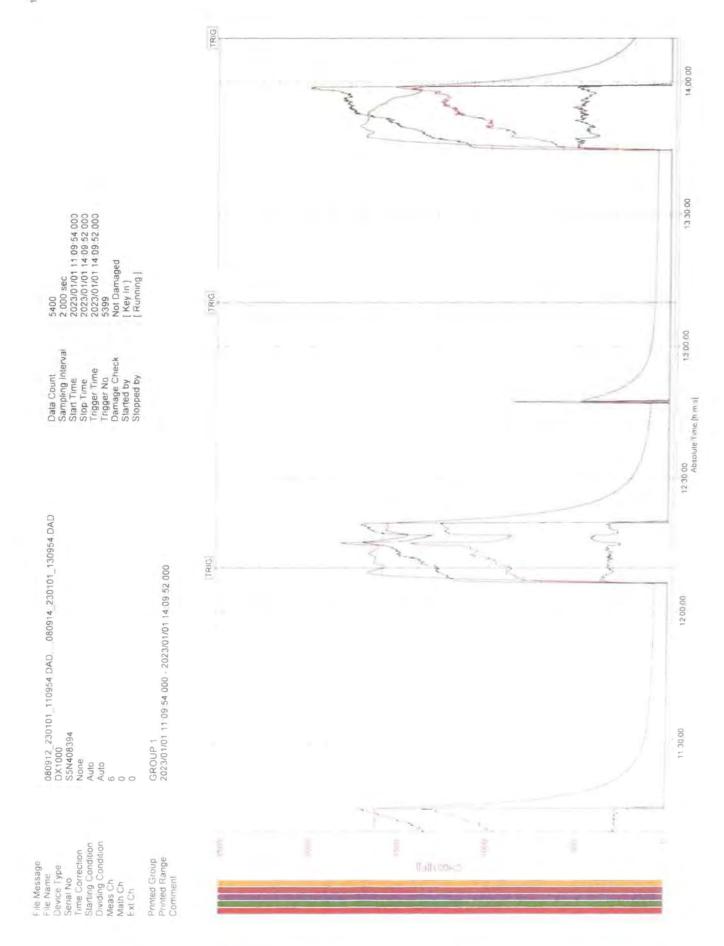
cc: Joe Muehleck (BAAQMD), email

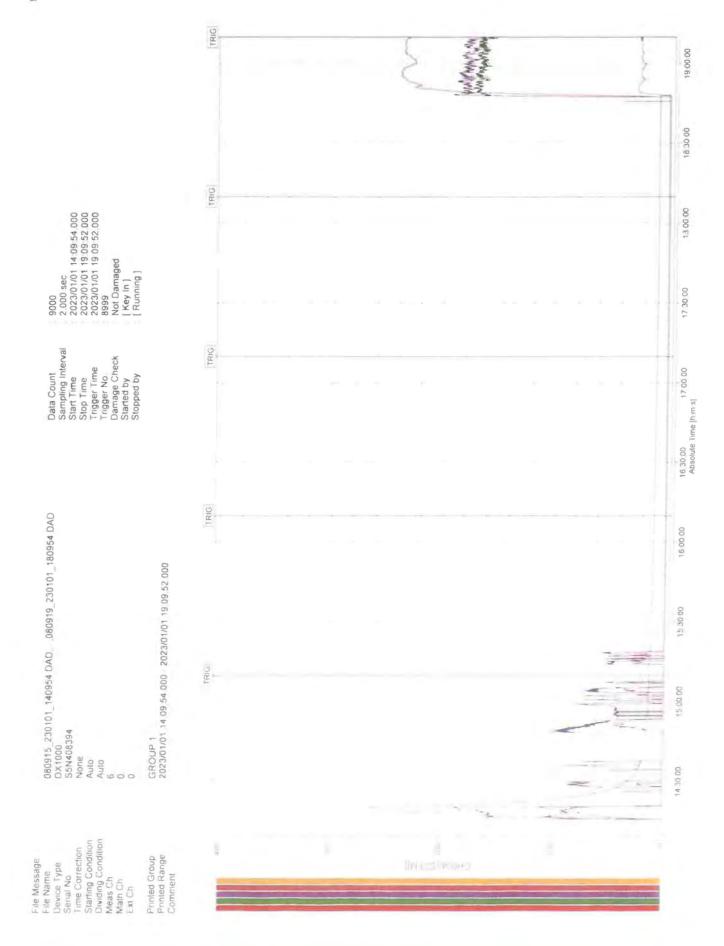
Attachment: Flow Chart

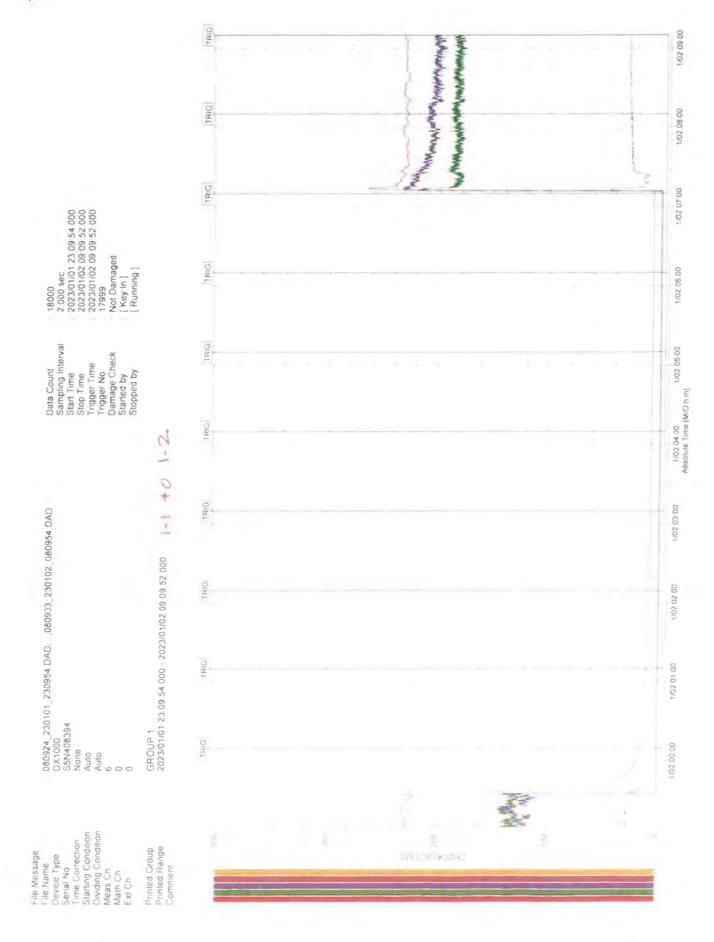












# BAAQMD -FacilityA5905 RCA08P76 -10- and 30-day Deviation Report

Final Audit Report 2023-01-10

Created: 2023-01-10

By: McKendra Lafferty (MLafferty@sunnyvale.ca.gov)

Status Signed

Transaction ID: CBJCHBCAABAA4QDAilygyyzzSz8ou4dT9jUp-T4YpV8g

# "BAAQMD -FacilityA5905 RCA08P76 -10- and 30-day Deviation Report" History

- Document created by McKendra Lafferty (MLafferty@sunnyvale.ca.gov) 2023-01-10 + 10:23:07 PM GMT
- Document emailed to Ramana Chinnakotla (rchinnakotla@sunnyvale.ca.gov) for signature 2023-01-10 10:23:58 PM GMT
- Email viewed by Ramana Chinnakotla (rchinnakotla@sunnyvale.ca.gov) 2023-01-10 10:58:07 PM GMT
- Document e-signed by Ramana Chinnakotla (rchinnakotla@sunnyvale.ca.gov)
  Signature Date: 2023-01-10 10:58:17 PM GMT Time Source: server
- Agreement completed. 2023-01-10 - 10:58:17 PM GMT



January 13, 2023

Director of Compliance and Enforcement Bay Area Air Quality Management District 375 Beale Street, Suite 600 San Francisco, CA 94105 SMaRT Station \*
301 Carl Road
Sunnyvale, CA 94089
TDD/TYY 408-730-7501
sunnyvale.ca.gov

Re: 10-day/30-day Deviation Report for S-8 City of Sunnyvale Sanitary Landfill, Facility #A5905 - RCA #08P98 (Breakdown Relief) and RCA #08P99 (Monitor Excess Emission or Excursion)

To whom it may concern,

This Deviation Report is submitted in compliance with Provision I.F of the Title V-Major Facility Review Permit for Plant #A5905, which states that, "...all instances of non-compliance with permit shall be reported in writing to the District's Compliance and Enforcement Division within 10 calendar days of the discovery of the incident. Within 30 calendar days of the discovery of any incident of non-compliance, the facility shall submit a written report including the probable cause of non-compliance and any corrective or preventative actions." This report is intended to serve as the 10-day and 30-day Deviation Report, and the 30-day RCA report requirements for RCA #08P98 (Breakdown Relief) and RCA #08P99 (Monitor Excess Emission or Excursion). The subject incident involves a moderate-term shutdown of the Sunnyvale Landfill (Source S-8) gas collection and control system (GCCS).

#### **Incident Description**

From 1/9/23 - 1/11/23, we received 2.03" of rainfall (per California Irrigation Management Information System (CIMIS)) which is believed to have contributed to a higher than usual amount of landfill gas (LFG) condensate generation. As a result, we encountered issues with the transport of LFG through the pipe network. We are continuing to investigate the higher than usual volume of condensate and the frequency of blockages in the piping system.

On 1/9/23 at 0918 LFG flow was lost to the #2 PGF (note that the #1 PGF is out of service for maintenance). The loss of landfill gas flow was attributed to a buildup of condensate in condensate trap CT-1E, which caused blockage of LFG flow, and resulted in the shutting down of the generator. During this time period, landfill staff pumped condensate in an effort to



increase LFG flow, and the flow was resumed at 1502. At 1547, the LFGF was set up to switch over to the PGF, and at 1620 the PGF (one genset) was in service.

This RCA episode started at 0918 and ended at 1620 on 1/9/23, a total of 7 hours and 2 minutes. During this episode, there was a relatively short duration of approximately 45 minutes when the LFG Flare was running.

Based on the available rainfall data and the saturated landfill cover, we believe it is highly unlikely that a significant release of LFG through the landfill cover would have occurred during this downtime.

Sincerely,

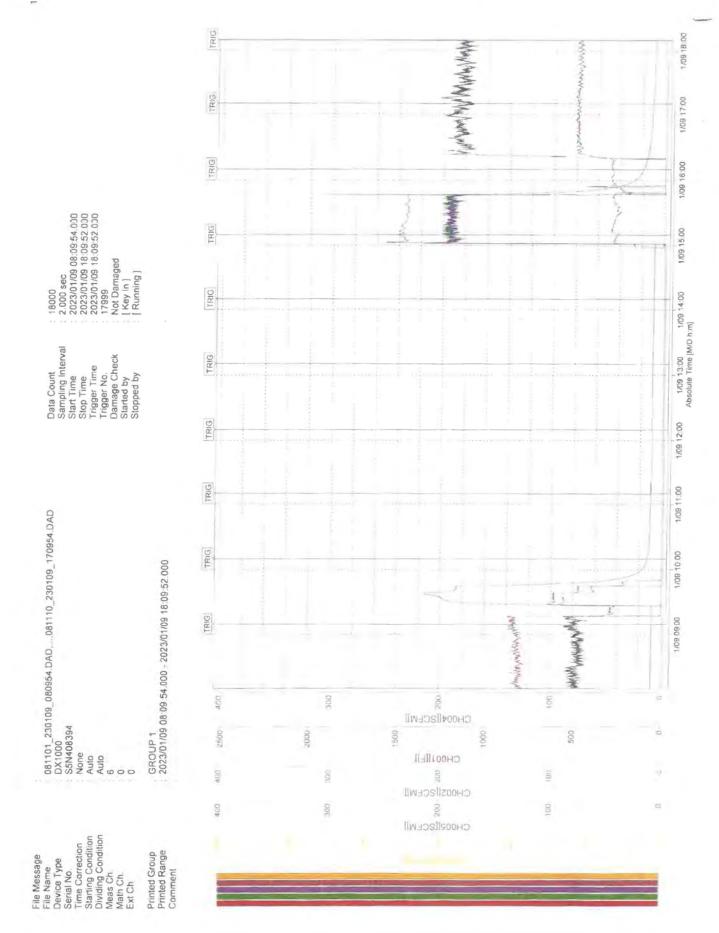
Ramana Chinnakotla

Ramana Chinnakotla Environmental Services Director

cc: Joe Muehleck (BAAQMD), email

Attachment: Flow Chart

Heart of Silcon Valley



## **BAAQMD RCA report**

Final Audit Report 2023-01-13

Created: 2023-01-13

By: McKendra Lafferty (MLafferty@sunnyvale.ca.gov)

Status:

Transaction ID: CBJCHBCAABAAnobDgeCeUBkB8flkt84s2cMQ1OfKAFZL

### "BAAQMD RCA report" History

- Document created by McKendra Lafferty (MLafferty@sunnyvale.ca.gov) 2023-01-13 - 8:43:19 PM GMT
- Document emailed to Ramana Chinnakotla (rchinnakotla@sunnyvale.ca.gov) for signature 2023-01-13 - 8:44:01 PM GMT
- Email viewed by Ramana Chinnakotla (rchinnakotla@sunnyvale.ca.gov) 2023-01-13 - 9:18:31 PM GMT
- Document e-signed by Ramana Chinnakotla (rchinnakotla@sunnyvale.ca.gov) Signature Date: 2023-01-13 - 9:18:58 PM GMT - Time Source; server
- Agreement completed. 2023-01-13 - 9:18:58 PM GMT



January 24, 2023

Director of Compliance and Enforcement Bay Area Air Quality Management District 375 Beale Street, Suite 600 San Francisco, CA 94105 SMaRT Station \* 301 Carl Road Sunnyvale, CA 94089 TDD/TYY 408-730-7501 sunnyvale.ca.gov

Re: 10-day/30-day Deviation Report for S-8 City of Sunnyvale Sanitary Landfill, Facility #A5905 - RCA #08Q12 (Breakdown Relief) and RCA #08Q13 (Monitor Excess Emission or Excursion)

To whom it may concern,

This Deviation Report is submitted in compliance with Provision I.F of the Title V-Major Facility Review Permit for Plant #A5905, which states that, "...all instances of non-compliance with permit shall be reported in writing to the District's Compliance and Enforcement Division within 10 calendar days of the discovery of the incident. Within 30 calendar days of the discovery of any incident of non-compliance, the facility shall submit a written report including the probable cause of non-compliance and any corrective or preventative actions." This report is intended to serve as the 10-day and 30-day Deviation Report, and the 30-day RCA report requirements for RCA #08Q12 (Breakdown Relief) and RCA #08Q13 (Monitor Excess Emission or Excursion). The subject incident involves a moderate-term shutdown of the Sunnyvale Landfill (Source S-8) gas collection and control system (GCCS).

#### **Incident Description**

From1/16/23 - 1/18/23 we received 1.07" of rainfall (per California Irrigation Management Information System (CIMIS)) which is believed to have contributed to a higher than usual amount of landfill gas (LFG) condensate generation. As a result, we encountered issues with the transport of LFG through the pipe network. We are continuing to investigate the higher than usual volume of condensate and the frequency of blockages in the piping system.

On 1/16/23 at 00:39 the Power Generation Facility (PGF) shutdown due to loss of LFG flow. The loss of LFG flow was attributed to a buildup of condensate in the landfill gas collection system, which caused blockage of LFG flow, and resulted in the shutting down of the PGF. During this time period, landfill staff inspected condensate pumps and portions of the landfill gas collection system to try to determine where the blockage was located. Landfill staff hired a



contractor to perform a camera inspection of the landfill pipes in several locations. It was determined there was a blockage in condensate trap CT-7E. Staff immediately pumped condensate at this location in an effort to increase LFG flow. At 1247 on 1/18/23, the LFGF was in service. At 1421, the LFGF was set up to switch over to the PGF, and at 1443 the PGF was in service.

This RCA episode started at 00:39 on 1/16/23 and ended at 1443 on 1/18/23, a total of 61.07 hours. During this episode, there was a duration of approximately 1.92 hours when the LFG Flare was running.

Based on the available rainfall data and the saturated landfill cover, we believe it is highly unlikely that a significant release of LFG through the landfill cover would have occurred during this downtime.

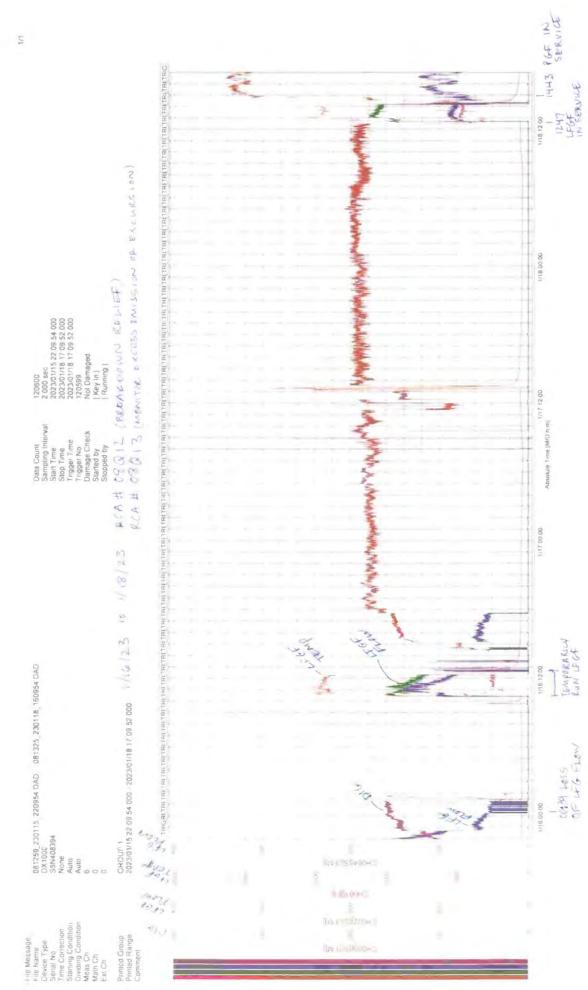
Sincerely,

Karen Gissibl

Environmental Programs Manager

cc: Joe Muehleck (BAAQMD), email

Attachment: Flow Chart



# BAAQMD- RCA 08Q12 and 08Q13\_10- and 30day report (1)

Final Audit Report 2023-01-24

Created: 2023-01-24

By: McKendra Lafferty (MLafferty@sunnyvale.ca.gov)

Transaction ID: CBJCHBCAABAAeQKJ4CPRneEv\_4kPF9tbSX07Lu7LWaUL

## "BAAQMD- RCA 08Q12 and 08Q13\_10- and 30-day report (1)" History

- Document created by McKendra Lafferty (MLafferty@sunnyvale.ca.gov) 2023-01-24 - 8.48:00 PM GMT
- Document emailed to Karen Gissibl (kgissibl@sunnyvale.ca.gov) for signature 2023-01-24 - 8:48:40 PM GMT
- Email viewed by Karen Gissibl (kgissibl@sunnyvale.ca.gov) 2023-01-24 - 9:39:15 PM GMT
- Document e-signed by Karen Gissibl (kgissibl@sunnyvale.ca.gov) Signature Date: 2023-01-24 - 9:41:10 PM GMT - Time Source: server
- Agreement completed. 2023-01-24 - 9:41:10 PM GMT



January 27, 2023

Director of Compliance and Enforcement Bay Area Air Quality Management District 375 Beale Street, Suite 600 San Francisco, CA 94105 SMaRT Station \* 301 Carl Road Sunnyvale, CA 94089 TDD/TYY 408-730-7501 sunnyvale.ca.gov

Re: 10-day/30-day Deviation Report for S-8 City of Sunnyvale Sanitary Landfill, Facility #A5905 - RCA #08Q22 (Breakdown Relief) and RCA #08Q23 (Monitor Excess Emission or Excursion)

To whom it may concern,

This Deviation Report is submitted in compliance with Provision I.F of the Title V-Major Facility Review Permit for Plant #A5905, which states that, "...all instances of non-compliance with permit shall be reported in writing to the District's Compliance and Enforcement Division within 10 calendar days of the discovery of the incident. Within 30 calendar days of the discovery of any incident of non-compliance, the facility shall submit a written report including the probable cause of non-compliance and any corrective or preventative actions." This report is intended to serve as the 10-day and 30-day Deviation Report, and the 30-day RCA report requirements for RCA #08Q22 (Breakdown Relief) and RCA #08Q23 (Monitor Excess Emission or Excursion). The subject incident involves a relatively short-term shutdown of the Sunnyvale Landfill (Source S-8) gas collection and control system (GCCS).

#### **Incident Description**

Large quantities of rain were received at the landfill site for the month of January, 8.24" of rainfall (per California Irrigation Management and Information System (CIMIS)), which contributed to a higher than usual amount of landfill gas (LFG) condensate generation. As a result, we encountered issues with the transport of LFG through the pipe network. We are continuing to investigate the higher than usual volume of condensate and the frequency of blockages in the piping system.

On 1/19/23 at 0238 there was a loss of LFG flow. The loss of LFG flow was attributed to a buildup of condensate in the landfill gas collection system, which caused blockage of LFG flow, and resulted in the shutting down of the GCCS. The #1 PGF continued to operate on mixed gas (MG), a combination of digester gas and air blended natural gas. During this time period,



landfill staff inspected condensate pumps and areas of the landfill gas collection system to determine where the blockage was located. It was determined there was a blockage in condensate trap CT-7E. Staff immediately pumped condensate at this location in an effort to increase LFG flow. Staff replaced the pump in CT-7E with a new one. At 1020, there was sufficient LFG flow available to send to the #1 PGF. At 1140, the #2 PGF was placed in service and both engines were operating at normal output.

This RCA episode started at 0238 and ended at 1020 on 1/19/23, a total of 7.7 hours.

Based on the available rainfall data, we believe it is highly unlikely that a significant release of LFG through the landfill cover would have occurred during this downtime.

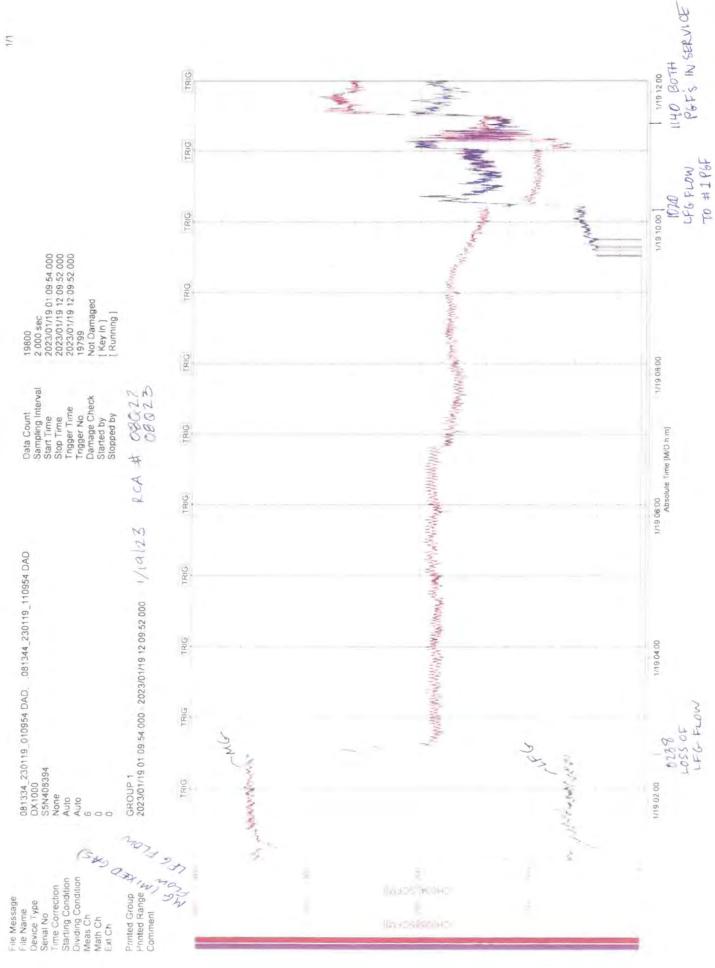
Sincerely,

Karen Gissibl

Environmental Programs Manager

cc: Joe Muehleck (BAAQMD), email

Attachment: Flow Chart



# BAAQMD- RCA 08Q22 and 08Q23\_10- and 30day report1 (1)

Final Audit Report 2023-01-27

Created: 2023-01-27

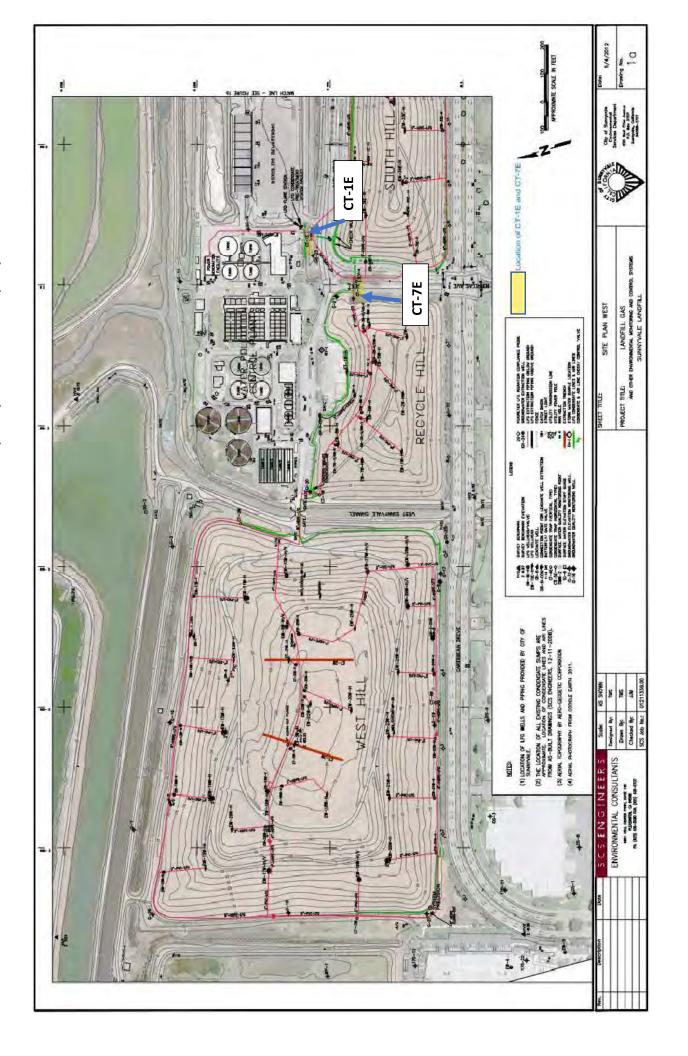
By: McKendra Lafferty (MLafferty@sunnyvale.ca.gov)

Status: Signed

Transaction ID: CBJCHBCAABAA-YH7\_MH3\_uCULZAb3JJfwFkuGTDVevMA

## "BAAQMD- RCA 08Q22 and 08Q23\_10- and 30-day report1 (1)" History

- Document created by McKendra Lafferty (MLafferty@sunnyvale.ca.gov) 2023-01-27 4:52:28 PM GMT
- Document emailed to Karen Gissibl (kgissibl@sunnyvale.ca.gov) for signature 2023-01-27 - 4:53:22 PM GMT
- Email viewed by Karen Gissibl (kgissibl@sunnyvale.ca.gov) 2023-01-27 5:04:43 PM GMT
- Document e-signed by Karen Gissibl (kgissibl@sunnyvale.ca.gov)
  Signature Date: 2023-01-27 5:08:36 PM GMT Time Source: server
- Agreement completed. 2023-01-27 - 5:08:36 PM GMT





New CT-7E Condensate Trap



New CT-1E Condensate Trap



September 21, 2023

SMaRT Station ® 301 Carl Road Sunnyvale, CA 94089 TDD/TYY 408-730-7501 sunnyvale.ca.gov

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

Re: 10-day/30-day Deviation Report for S-8 City of Sunnyvale Sanitary Landfill, Facility #A5905 - RCA #08U74 (Breakdown Relief), and RCA #08U80 (Monitor Indicates Excess Emission or Excursion)

To whom it may concern,

This Deviation Report is submitted in compliance with Provision I.F of the Title V-Major Facility Review Permit for Plant #A5905, which states that, "...all instances of non-compliance with permit shall be reported in writing to the District's Compliance and Enforcement Division within 10 calendar days of the discovery of the incident. Within 30 calendar days of the discovery of any incident of non-compliance, the facility shall submit a written report including the probable cause of non-compliance and any corrective or preventative actions." This report is intended to serve as the 10-day and 30-day Deviation Report, and the 30-day RCA report requirements for RCA #08U74 (Breakdown Relief) and RCA #08U80 (Monitor Indicates Excess Emission or Excursion). The subject incident involves a moderate-term shutdown of the Sunnyvale Landfill (Source S-8) gas collection and control system (GCCS).

#### **Incident Description**

09/14/23, In preparations for a scheduled temporary shutdown of PG&E power related to planned contractor work at the new facility switchgear Water Pollution Control Plant (Plant) Site#A0733, power supply was switched to the emergency generator. After switching to generator power at 0905, the Landfill Gas Flare (LFGF) was unable to start. Efforts were immediately initiated to troubleshoot an apparent loss of power. The source of the power outage was traced to the Uninterruptible Power Supply (UPS) units that power the LFGF control panel. The UPS units were powered up and the control panel was reset by pressing a "reset" switch. The LFGF was put back in service at 1020, ending this event.



During this RCA reporting period, the total downtime for collection of LFG from the landfill was 1 hour and 15 minutes.

The Plant has submitted a work order to the maintenance department to have these UPS units replaced to prevent similar events. In addition, a label will be placed on the LFGF Control Panel adjacent to the reset switch, directing that the "reset" switch should be pressed whenever such an occurrence (UPS outage) takes place.

The long-term solution will be to connect the LFGF control panel to the Plants' future standby backup generator power supply.

Sincerely,

Deepti Jain

**Environmental Programs Manager** 

cc: Joe Muehleck (BAAQMD), email

Attachment A: Flow Chart

Attachment B: Plant Shutdown Request (PSR)

Heart of Silicon Valley<sup>™</sup> Page 2 of 2



Received by

### **COMPLIANCE & ENFORCEMENT DIVISION**

#### **Notification Form**

Reportable Compliance Activity (RCA)

Time

Date

		See back of form	for instructions →
	S REQUESTING BREAKDOWN RELIEI	F (Regulation 1-43 <sup>か</sup> フタ <b>リ</b> 74	1 and 1-432)
The state of the s	NDICATES EXCESS EMISSION or EXC aly EXCESS or EXCURSION REFEREN		-522.7, 1-523.3, 1-542)
	S INOPERATIVE (Regulation 1-522.4, aly INOPERATIVE MONITOR REFEREN	•	
	EIS RELEASED FROM RELIEF DEVICE Bly PRD REFERENCE #:	E (PRD) (Regulation	on 8-28-401)
SITE INF	ORMATION AND DESCRIPTION INFO	RMATION (REQUI	RED)
Company	City of Sunnyvale Water Pollution Control Plant	Site #	5905
Address	1444 Borregas Ave, Sunnyvale CA 94088	Source #	8
Reported by	Kyle Markarian - Senior Operator	Phone #	408-730-7260
Indicated Excess		Fax #	
Allowable Limit		Averaging Time	
Start Time/Date	0905 hrs / 9-14-23	Clear Time	1020 hrs / 9-14-23
Monitor/device type(s)	▶CEM ▶GLM ▶Paran	netric ▶PRD	▶ Non-monitor
Monitor description(s)			
Parameter(s) exceeded  NO <sub>x</sub> SO Colored Hydrocarbon Brea Wind Direction Unit(s) of Measurement ppm ppb	D	► H <sub>2</sub> S	► Flow
▶psig ▶pH	▶ <sup>0</sup> Fahrenheit	► Other (describe)	
new facili switching and no po	ration for scheduled loss of PG&E power ity switchgear plant supply power moved to generator power at 0905 unable to stower to UPS units at the LFG flare. After a flare was put in service ending this eve	to emergency general LFG flare. Discorping fuse and	erator. After overed a blown fuse
	District Use Only		



Received by

### **COMPLIANCE & ENFORCEMENT DIVISION**

#### **Notification Form**

Reportable Compliance Activity (RCA)

Time

Date

DISTRICT			
		See back of form t	for instructions →
1. FACILITY IS REQUESTING BREAKDOWN RELIEF (Regulation 1-431 and 1-432)  District Use Only BREAKDOWN REFERENCE #:			
	NDICATES EXCESS EMISSION or EXCL by EXCESS or EXCURSION REFERENC		522.7, 1-523.3, 1-542)
	S INOPERATIVE (Regulation 1-522.4, 1- by INOPERATIVE MONITOR REFERENCE		
	IS RELEASED FROM RELIEF DEVICE ( by PRD REFERENCE #:	(PRD) (Regulatio	n 8-28-401)
SITE INFO	ORMATION AND DESCRIPTION INFOR	MATION (REQUIR	RED)
Company	City of Sunnyvale Water Pollution Control Plant	Site #	5905
Address	1444 Borregas Ave, Sunnyvale CA 94088	Source #	8
Reported by	Kyle Markarian - Senior Operator	Phone #	408-730-7260
Indicated Excess		Fax #	
Allowable Limit		Averaging Time	
Start Time/Date	0905 hrs / 9-14-23	Clear Time	1020 hrs / 9-14-23
Monitor/device type(s)	►CEM ►GLM × ►Parame	tric PRD	▶ Non-monitor
Monitor description(s)			
Parameter(s) exceeded or not functioning due to inoperation  NO <sub>x</sub> SO <sub>2</sub> CO CO <sub>2</sub> H <sub>2</sub> S TRS NH <sub>3</sub> O <sub>2</sub> H <sub>2</sub> O Opacity Lead Gauge Pressure Flow  Hydrocarbon Breakthrough (VOC) Temperature Wind Speed  Wind Direction Steam Other (describe)			
▶ppm ▶ppb ▶min/hr > 20% ▶inches H₂O ▶mmHg   ▶psig ▶pH ▶Fahrenheit ▶Other (describe)			
Event Description: In preperation for scheduled loss of PG&E power for contractor work to be performed at new facility switchgear plant supply power moved to emergency generator. After switching to generator power at 0905 unable to start LFG flare. Discovered a blown fuse and no power to UPS units at the LFG flare. After replacing fuse and powering UPS units LFG flare was put in service ending this event at 1020.  9/15/2023 - Deepti Jain, EPM, Sunnyvale - Checking off box#2 and Parametric based on the discussion with Joe Muehleck, Air Quality Inspector.			
District Use Only			

File Message File Name 087051 230914 064400.DAD,...,087055 230914 104400.DAD Device Type DX1000 Serial No. S5N408394 Time Correction None Starting Condition Auto **Dividing Condition** Auto Meas Ch. 6 Math Ch. 0 Ext Ch. 0

Printed Group : GROUP 1

Printed Range : 2023/09/14 06:44:00.000 - 2023/09/14 11:43:58.000 Comment

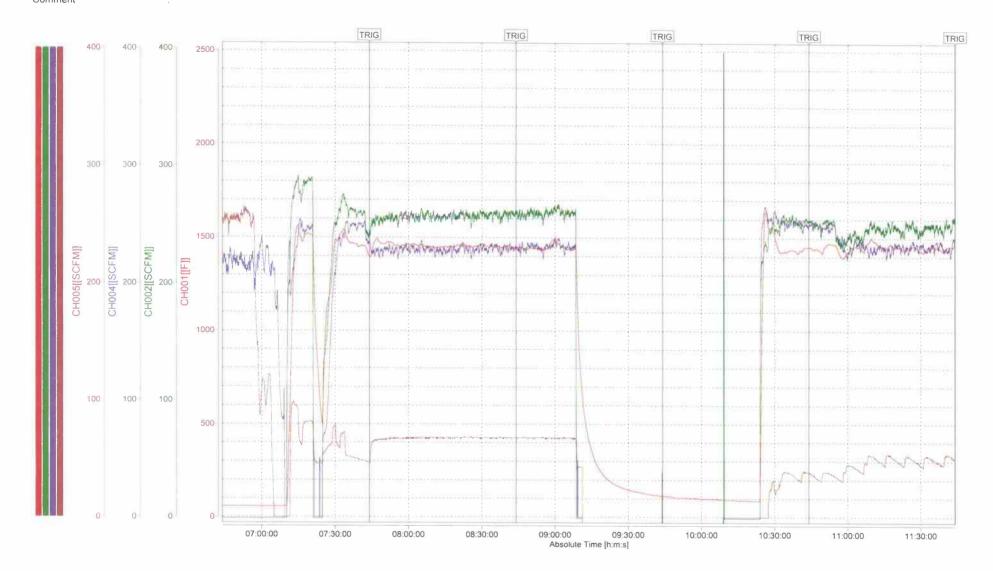
Data Count : 9000 Sampling Interval : 2,000 sec

 Start Time
 : 2023/09/14 06:44:00.000

 Stop Time
 : 2023/09/14 11:43:58.000

 Trigger Time
 : 2023/09/14 11:43:58.000

Trigger No. : 8999
Damage Check : Not Damaged
Started by : [Key In ]
Stopped by : [Running ]





# Environmental Services Department Water Pollution Control Plant Plant Shutdown Request (PSR)

This form is intended for <u>shutdowns that involve the need to cease the discharge</u> of wastewater to the bay.

All sections of this form must be <u>completed</u> and <u>approved</u> before any Plant Shutdown.

A.	REQUESTED SHUTDOWN START DATE: wednesday, September 13, 2023
В.	REQUESTED SHUTDOWN START TIME: 2330 hours
	The lab usually has samples concluding at 0800 hours in the morning - contact the lab and take this under consideration.
C.	SPECIFIC SYSTEM/S TO SHUTDOWN: Tertiary -
D.	NAME OF REQUESTOR: Psomas for Overaa – See attached SOR
Ε.	WILL THE SHUTDOWN CAUSE POWER LOSS TO ANY OR ALL PARTS OF THE PLANT?
	YES NO If yes to all, be sure that critical process systems are evaluated.  IF YES, CHECK TO SEE IF SYNAGRO IS OPERATING AND IF THE PSR WILL SECURE POWER TO SYNAGRO. IF YES, SYNAGRO WILL NEED AT LEAST A WEEK'S LEAD TIME UNLESS IT'S EMERGENCY WORK.
F.	WILL THE SHUTDOWN CAUSE A LOSS OF 3 WATER TO THE SYNAGRO JOB SITE?
	YES NO IF YES, ENOUGH LEAD TIME IS REQUIRED TO INFORM SYNAGRO OF THE NEED TO STOP PROCESSING SO THEY MAY SECURE THEIR SYSTEMS AND RE-SCHEDULE STAFF.
G.	SYSTEM SHUTDOWN END DATE: Friday, September 15, 2023
Н.	SYSTEM SHUTDOWN END TIME: 0030 hours
SY	STEM SHUT DOWN NARRATIVE:
	his ~ 24-hour shutdown is required to complete electrical distribution work on the ew system. The Plant will be on the 1MW backup gen until the work is complete.
1.	List other systems or processes that will be impacted during this time and cite a reason.  • If the Landfill gas collection or pretreatment condensate systems will be impacted, notify Solid Waste.
Th	ne entire Plant will be impacted by the power loss twice.
2.	List any work orders, safety, or regulatory issues associated with this request.
Se	e the attached email from Mike H



# Environmental Services Department Water Pollution Control Plant Plant Shutdown Request (PSR)

Notifications are required in work areas that impact sections with completed hard copies to critical staff left in their mailboxes and soft copies emailed to rest. Always check with the Lab to see if any sampling may be impacted. Some sampling may need to be rescheduled.

Signatures:	
Supervisors on Duty on Requested Day/Time:	
Days I - Pat Lenoir / Kyke Markarian	
Days II – Luis Arribeno / Leo Carlino	
Graves I - Stacy Peyton / Jonathan Washington	
Graves II - Robert Rockett	
Maintenance Supervisor	
Operations Manager (Bryan Berdeen) approval:	
Maintenance & Facilities Manager (Leonard Espinoza) approval: Leonard Egans	m
LAB Manager (Alo Kauravlla) Notification: email & mailbox	N/A 🗆
Senior Chemist (Allen Wan and/or Camnga Thach) Notification:	N/A 🗆
Senior Pretreatment Inspector (xxx xxx) Notification:	N/A ⊠
Regulatory Programs (Cameron and/or Julie) Notification: email & mailbox	N/A 🗆
Support Services Notification:	N/A ⊠
Solid Waste Notification: (Bill/Silviana) – By email	N/A 🗆
Project Administration/PSOMAS Notification – By email	N/A 🗆
Synagro Notification: email & phone call/site meeting	N/A ⊠
SSR Placed onto WPCP Coordination Calendar by: YES ⊠ NO □	N/A 🗆
* Use N/A ⊠ if section/person notification is NOT required and/or shut down does not impact workgroup	

Hello, please see the list of jobs we'd like to accomplish during the Contractor scheduled shutdown for Sep. 14th. Please let me know om & Richard = Replace PGF Gas Dryer Isolation valves

Raffy = T-3 Sump lever transmitter wiring, Flow Rate Control Valves high level sump closure

Dscar = While power is out and service air compressors offline Install a valve on Oil Separator, Re-install Tertiary control room UPS a (yle = Modifications to the old Alum feed line (see Mark Somera for instructions)

Dave = #1 PGF Power Supply, #2 Filtered Water Pump controls into SCADA

Mark = While power is out and 3Water pumps offline replace isolation valve in Poly Room, Digester #3 Feed valve replacement - SSI Mike = Logic and wiring for Flow Rate Control Valve closure in DMF PLC, T-3 sump level transmitter into OPTO assistance

/IKE HERRERA **Senior Plant Mechanic** Vater Pollution Control Plant **Environmental Services Department** 

hone: 408-730-7760

#### **Asco Power Technologies**

#### **Method of Procedure**

MOP DATE: 6.6.23 (Rev1a\_9/8/23)

JOB (PROJECT	City of Sunnyvale WPCP
START DATE	9/14/23
END DATE	9/14/23

#### MOP NAME

Closed transition timer install

#### **CONTRACTORS**

ASCO-FSR: TBI	)	

#### JOB DESCRIPTION/ COMMENTS

ASCO WILL CONDUCT A MODIFICATION TO THE EXISTING POWER CONTROL SYSTEM 12811P1. THIS MODIFICATION WILL CONSIST OF ADDING PG&E REQUIRED EXTENDED PARALLEL TIMERS TO BOTH UTILITY BREAKERS.

#### **CUSTOMER IMPACT**

DURING THE MODIFICATION IT WILL BE NECESSARY TRANSFER THE SYSTEM TO A SINGLE UTILITY FEED WHILE THE OTHER UTILITY BREAKER CONTROL IS BEING MODIFIED.

DURING MODIFICATIONS, THE SYSTEM WILL BE PLACED IN MANUAL MODE. IF A UTILITY FAILURE OCCURS, ASCO CAN PLACE THE SYSTEM BACK IN AUTO IN APPROXIMATELY ONE MINUTE.

LINE	STEPS	CUSTOMER IMPACT
1	Place system in manual.	Loss of utility will require manual intervention to restore power.
2	Open Utility 2 breaker (52-2)	Loads on bus 2 will be disconnected from utility power
2a.	Adjust rear doors of Sections 11-17	Loss of power for 1-2 hours
3	Close Tie 1 (52-T1)	
4	Close Tie 2 (52-T2)	Power is restored to bus 2.
5	Install mounting bracket inside utility 2 breaker section.	
6	Install wiring per drawing markup. Do not land wires on energized terminals until later step.	
7	Install new timer inside utility 2 breaker section and complete all wiring terminations to device.	
8	Open control breakers CB6_CBTR and CB1_CONV to isolate 125VDC and 24VDC circuits.	
9	Make final wire terminations.	
10	Close control breakers CB6_CBTR and CB1_CONV to return 125VDC and 24VDC circuits. Wait for all devices to power up before proceeding.	
11	Jumper inputs 21 and 13 and verify that timer activates the 86 lockout relay on utility breaker 2 door.	
12	Reset timer and 86 lockout relay.	
13	Open Tie 2 breaker (52-T2)	Loads on bus 2 will be disconnected from utility power
14	Close Utility 2 breaker (52-2)	Power is restored to bus 2.
15	Open Tie 1 (52-T1)	
16	Open Utility 1 (52-1)	Loads on bus 1 will be disconnected from utility power (this bus feeds the majority of the existing WPCP)

16a	Adjust rear doors of Sections 1-7	Loss of power for 1-2 hours
17	Close Tie 2 (52-T2)	
18	Close Tie 1 (52-T1)	Power is restored to bus 1.
19	Install mounting bracket inside utility 1 breaker	
	section.	
20	Install wiring per drawing markup. Do not land	
	wires on energized terminals until later step.	
21	Install new timer inside utility 1 breaker section	
	and complete all wiring terminations to device.	
22	Open control breakers CB6_CBTR and CB1_CONV	
	to isolate 125VDC and 24VDC circuits.	
23	Make final wire terminations.	
24	Close control breakers CB6_CBTR and CB1_CONV	
	to return 125VDC and 24VDC circuits. Wait for all	
	devices to power up before proceeding.	
25	Jumper inputs 21 and 13 and verify that timer	
	activates the 86 lockout relay on utility breaker 1	
	door.	
26	Reset timer and 86 lockout relay.	
27	Open Tie 1 (52-T1)	Loads on bus 1 will be disconnected
		from utility power (this bus feeds the
		majority of the existing WPCP)
28	Close Utility 1 breaker (52-1)	Power is restored to bus 1.
29	Open Tie 2 (52-T2)	
30	Return system to Auto mode.	



September 21, 2023

SMaRT Station ® 301 Carl Road Sunnyvale, CA 94089 TDD/TYY 408-730-7501 sunnyvale.ca.gov

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

Re: 10-day/30-day Deviation Report for S-8 City of Sunnyvale Sanitary Landfill, Facility #A5905 - RCA #08U81 Breakdown Relief and RCA #08U82 Monitor Indicates Excess Emission or Excursion

To whom it may concern,

This Deviation Report is submitted in compliance with Provision I.F of the Title V-Major Facility Review Permit for Plant #A5905, which states that, "...all instances of non-compliance with permit shall be reported in writing to the District's Compliance and Enforcement Division within 10 calendar days of the discovery of the incident. Within 30 calendar days of the discovery of any incident of non-compliance, the facility shall submit a written report including the probable cause of non-compliance and any corrective or preventative actions." This report is intended to serve as the 10-day and 30-day Deviation Report, and the 30-day RCA report requirements for RCA #08U81 (Breakdown Relief) and RCA #08U82 (Monitor Indicates Excess Emission or Excursion). The subject incident involves a shutdown of the Sunnyvale Landfill (Source S-8) gas collection and control system (GCCS).

#### **Incident Description**

On 9/14/23, the Water Pollution Control Plant (Plant), Site# A0733, contractor planned electrical work was completed and the Plant was switching from generator power supply to normal PG&E power. After restoring normal power at 1653, the Uninterruptible Power Supply (UPS) units lost power and the Landfill Gas Flare (LFGF) was unable to start. This is the same issue that occurred earlier in the day (reference RCA #08U74). The UPS units were restarted/repowered and the LFGF was back in service at 1726. The total duration of this event was 33 minutes.

The Plant has submitted a work order to the maintenance department to have these UPS Units replaced to prevent similar events in the future. In addition, a label will be placed on the LFGF



Control Panel adjacent to the reset switch, directing that the "reset" switch should be pressed whenever such an occurrence (UPS outage) takes place.

The long-term solution will be to connect the LFGF control panel to the Plants' future standby backup generator power supply.

Sincerely,

Deepti Jain

**Environmental Programs Manager** 

cc: Joe Muehleck (BAAQMD), email

Attachment A: Flow Chart

Attachment B: Plant Shutdown Request (PSR)

Heart of Silicon Valley<sup>™</sup> Page 2 of 2



Received by

### **COMPLIANCE & ENFORCEMENT DIVISION**

#### **Notification Form**

Reportable Compliance Activity (RCA)

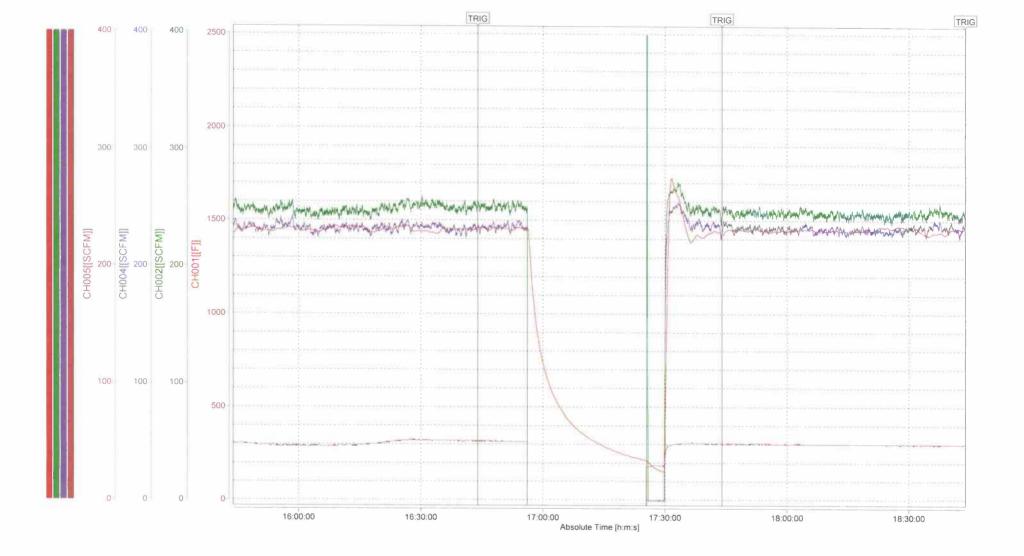
Time

Date

		See back of form	for instructions →
	REQUESTING BREAKDOWN RELIEF BY BREAKDOWN REFERENCE #:	(Regulation 1-431	and 1-432)
	NDICATES EXCESS EMISSION or EXCU IN EXCESS or EXCURSION REFERENC		-522.7, 1-523.3, 1-542)
	S INOPERATIVE (Regulation 1-522.4, 1- ly INOPERATIVE MONITOR REFERENCE		
_	IS RELEASED FROM RELIEF DEVICE By PRD REFERENCE #:	(PRD) (Regulatio	n 8-28-401)
SITE INF	ORMATION AND DESCRIPTION INFOR	MATION (REQUIR	RED)
Company	City of Sunnyvale -Water pollution control plant	Site #	A5905
Address	1444 Borregas Ave, Sunnyvale CA 94088	Source #	8
Reported by	Deepti Jain, Env. Manager	Phone #	408-730-7791
Indicated Excess		Fax #	
Allowable Limit		Averaging Time	
Start Time/Date	1653 hrs / 9-14-23	Clear Time	1726 hrs / 9-14-23
Monitor/device type(s)	►CEM ►GLM × ►Parame	etric PRD	▶ Non-monitor
Monitor description(s)			
Parameter(s) exceeded  NO <sub>x</sub> SO <sub>2</sub> Hydrocarbon Brea  Wind Direction	D Deparity Department	H <sub>2</sub> S	▶Flow
Unit(s) of Measurement		_	
<b>▶</b> ppm <b>▶</b> ppb	► min/hr > 20%	▶inches H <sub>2</sub> O	▶mmHg
▶psig ▶pH	▶ <sup>0</sup> Fahrenheit	► Other (describe)	
switchgear p LFG flare fai fuse and powereported as I Later in the of losing power = 33 minutes	3, in preparation for the scheduled loss of PG&E power plant supply power moved to emergency generator at 05 led to start. Staff discovered a blown fuse and no powering UPS units LFG flare was put in service ending the D#08U74 was 1 hr and 15 minutes. day, after restoring the plant to normal PG&E power, we and the flare not reigniting. The second event started as when the UPS units were restarted/repowered and the to the maintenance department to have these UPS units.	900. After switching to get to UPS units at the LFC his event at 1020. Total deep experienced the same at 1653 and ended at 173 are flare was back in servi	enerator power at 0905, 3 flare. After replacing luration of the first incident issue with the UPS units 26 (total incident duration ce. Facility has submitted
	District Use Only		

File Message File Name Device Type DX1000 Serial No. S5N408394 Time Correction None Starting Condition Auto Dividing Condition Auto Meas Ch 6 Math Ch 0 Ext Ch. 0







# Environmental Services Department Water Pollution Control Plant Plant Shutdown Request (PSR)

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	SYSTEM SHUTDOWN END DATE: Friday, September 15, 2023
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Days II – Luis Arribeno / Leo Carlino	
Graves I – Stacy Peyton / Jonathan Washington	***************************************
Graves II - Robert Rockett	
Maintenance Supervisor	Granning Agrahama
Operations Manager (Bryan Berdeen) approval:	
Maintenance & Facilities Manager (Leonard Espinoza) approval: Leonard Espinoza	
LAB Manager (Alo Kauravlla) Notification: email & mailbox  N/A	
Senior Chemist (Allen Wan and/or Camnga Thach) Notification: N/A	
Senior Pretreatment Inspector (xxx xxx) Notification: N/A	
Regulatory Programs (Cameron and/or Julie) Notification: email & mailbox N/A	
Support Services Notification: N/A	
Solid Waste Notification: (Bill/Silviana) – By email	
Project Administration/PSOMAS Notification – By email N/A	
Synagro Notification: email & phone call/site meeting N/A	$\boxtimes$
SSR Placed onto WPCP Coordination Calendar by: YES ⊠ NO □ N/A	
* Use N/A ⊠ if section/person notification is NOT required and/or shut down does not impact workgroup	

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AIKE HERRERA
Senior Plant Mechanic
Vater Pollution Control Plant
Environmental Services Department

hone: 408-730-7760

#### **Asco Power Technologies**

#### **Method of Procedure**

MOP DATE: 6.6.23 (Rev1a\_9/8/23)

JOB (PROJECT	City of Sunnyvale WPCP	
START DATE	9/14/23	
END DATE	9/14/23	

#### **MOP NAME**

Closed transition timer install

#### **CONTRACTORS**

#### JOB DESCRIPTION/ COMMENTS

ASCO WILL CONDUCT A MODIFICATION TO THE EXISTING POWER CONTROL SYSTEM 12811P1. THIS MODIFICATION WILL CONSIST OF ADDING PG&E REQUIRED EXTENDED PARALLEL TIMERS TO BOTH UTILITY BREAKERS.

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2a.	Adjust rear doors of Sections 11-17	Loss of power for 1-2 hours
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16	Open Utility 1 (52-1)	Loads on bus 1 will be disconnected from utility power (this bus feeds the majority of the existing WPCP)

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		majority of the existing WPCP)
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29	Open Tie 2 (52-T2)	
30	Return system to Auto mode.	