REPUBLIC SERVICES

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August 31, 2020

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

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

SUBJECT: Combined Title V Semi-Annual and Partial 8-34 Annual Report 40 CFR 63 Subpart AAAA Semi-Annual Report
International Disposal Corporation of California
1601 Dixon Landing Road
Milpitas, California 95035
Facility Number A9013

Dear Sir or Madam:

International Disposal Corporation of California (Newby Island Landfill) is pleased to submit the attached Semi-Annual Report (SAR) and Partial 8-34 Annual Report for the period of February 1, 2020 through July 31, 2020 to the Bay Area Air Quality Management District (BAAQMD) and the United States Environmental Protection Agency (USEPA), Region IX. As required by 40 Code of Federal Regulations (CFR) Part 63 Subpart AAAA, the Semi-Annual Startup, Shutdown and Malfunction (SSM) Report is also enclosed. The Combined Title V Semi-Annual and Partial 8-34 Annual Report satisfies the requirements of Newby Island Landfill's Title V Permit as listed in Title V Permit Condition Number 10423 Part 14 and Standard Condition I.F.

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

Sincerely,
International Disposal Corporation of CA

Daniel North
General Manager

8/24/2020
Date Signed

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

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

Newby Island Sanitary Landfill

February 1, 2020 through July 31, 2020

AUGUST 31, 2020

PRESENTED TO

International Disposal Corp. of California
1601 Dixon Landing Road
Milpitas, CA 95035

SUBMITTED BY

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REPORT CERTIFICATION

The material and data in this report were prepared under the supervision and direction of the undersigned.

8/31/2020

Anne Liu — Date
Environmental Scientist

8/31/2020

Meghan Caesar — Date
Project Manager

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1.0 INTRODUCTION

1.1 PURPOSE

This document is a Combined Semi-Annual Title V and Partial 8-34 Annual Report for Newby Island Sanitary Landfill and Recyclery (Newby Island) and International Disposal Corp. of California (IDCC) pursuant to Title V Permit Standard Condition 1.F and Condition Number 10423 Part 14. This report satisfies the requirements of the Bay Area Air Quality Management District's (BAAQMD) Regulation (Reg.) 8, Rule 34, Section 411, Title V Standard Condition 1.F and Title 40 Code of Federal Regulations (CFR) Part 60 Subpart WWW, New Source Performance Standards (NSPS) for Municipal Solid Waste (MSW) landfills, specifically 40 CFR §60.757(f). The Combined Report covers compliance activities conducted from February 1, 2020 through July 31, 2020. This Combined Report also includes the Semi-Annual Report (SAR) of Start-up, Shutdown, and Malfunction (SSM) Plan activities pursuant to National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 63, Subpart AAAA for Landfills.

Section 2 of this Combined Report contains the elements required to satisfy both BAAQMD Reg. 8-34-411 and 40 CFR §60.757(f). Section 3 of this Combined Report includes a discussion of the data from the most recent Performance (Source) Test, which was conducted on February 3, 2020 at the A-2 and A-3 Flares, in accordance with BAAQMD Reg. 8-34-412 and Title V Permit Condition Number 10423, Part 11. A Performance (Source) Test Report for the A-2 and A-3 Flares that meets the requirements of both BAAQMD Rule 8-34-413 and 40 CFR §60.758(g) was submitted to the BAAQMD on March 19, 2020 and is included in Appendix P of this SAR. Section 4 of this Combined Report includes the SAR of the SSM Plan activities pursuant to the NESHAP, 40 CFR Part 63, Subpart AAAA for Landfills.

Effective September 1, 2019, the gas collection and control system (GCCS) at Newby Island became subject to the monitoring and reporting requirements of 40 CFR §60, Subpart XXX NSPS since it commenced construction, reconstruction, or modification after July 17, 2014. The NSPS Subpart XXX Annual Report for Newby Island Landfill will be submitted as a separate document to the United States Environmental Protection Agency (USEPA) and the BAAQMD on February 28, 2020.

1.2 RECORDKEEPING AND REPORTING

Records are maintained and available for inspection in accordance with BAAQMD Rule 8-34-501.12 and 40 CFR §60.758. The primary location for records storage is at Newby Island. Records are maintained at this location as required by federal regulations for a minimum of five years.

1.3 REPORT PREPARATION

This Combined Report has been prepared by Tetra Tech, as authorized by IDCC.

2.0 COMBINED MONITORING REPORT

In accordance with Title V Permit Standard Condition 1.F, BAAQMD Rule 8-34-411 and §60.757(f) in the NSPS, this report is a Combined Semi-Annual Title V Report and Partial 8-34 Annual Report that is required to be submitted for Newby Island. The Combined Report contains monitoring data for the operation of the landfill gas (LFG) GCCS. The operational records have been reviewed and summarized. The timeframe included in this report is February 1, 2020 through July 31, 2020. The following table lists the rules and regulations that are required to be included in this Combined Report.

Table 2-1. Combined Report Requirements.

Rule	Requirement	Location in Report
8-34-501.1 §60.757(f)(4)	All collection system downtime, including individual well shutdown times and the reason for the shutdown.	Section 2.1, Appendices C, D, & E
8-34-501.2 §60.757(f)(3)	All emission control system downtime and the reason for the shutdown.	Section 2.2, Appendices D & E
8-34-501.3, 8-34-507, §60.757(f)(1)	Continuous temperature for all operating flares and any enclosed combustor subject to Section 8-34-507.	Section 2.3, Appendix F
8-34-501.4, 8-34-505, 8-34-510	Monitoring and Testing performed to satisfy any of the requirements of this rule.	Section 2.4 & 2.10 Appendices F, G & J
8-34-501.5	Monthly LFG flow rates and well concentration readings for facilities subject to 8-34-404.	Section 2.5, 2.11 Appendix L
8-34-501.6, 8-34-503, 8-34-506 §60.757(f)(5)	For operations subject to Section 8-34-503 and 8-34-506, records of all monitoring dates, leaks in excess of the limits in Section 8-34-301.2 or 8-34-303 that are discovered by the operator, including the location of the leak, leak concentration in parts per million by volume (ppmv), date of discovery, the action taken to repair the leak, date of the repair, date of any required re-monitoring, and the re-monitored concentration in ppmv.	Section 2.6 & 2.7, Appendices G & H
8-34-501.7	Annual waste acceptance rate and current amount of waste in-place.	Section 2.8
8-34-501.8	Records of the nature, location, amount, and date of deposition of non-degradable wastes, for any landfill areas excluded from the collection system requirement as documented in the GCCS Design Plan.	Section 2.9
8-34-501.9, 8-34-505, §60.757(f)(1)	For operations subject to Section 8-34-505, records of all monitoring dates and any excesses of the limits stated in Section 8-34-305 that are discovered by the operator, including well identification number, the measured excess, the action taken to repair the excess, and the date of repair.	Section 2.10 Appendices J & K
8-34-501.10, 8-34-508, §60.757(f)(1)	Continuous gas flow rate records for any site subject to Section 8-34-508.	Section 2.11, Appendices E and L
8-34-501.11, 8-34-509	For operations subject to Section 8-34-509, records or key emission control system operating parameters.	Section 2.2.2
8-34-501.12	The records required above shall be made available and retained for a period of five years.	Section 1.2

§60.757(f)(2)	Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under §60.756.	Section 2.2.1
§60.757(f)(6)	The date of installation and the location of each well or collection system expansion added pursuant to paragraphs (a)(3), (b), (c)(4) of §60.755.	Section 2.14, Appendices A & C
§60.10 (d)(5)(i)	Startup, Shutdown, Malfunction Events	Section 4.0, Appendices C & D

2.1 COLLECTION SYSTEM OPERATION (BAAQMD 8-34-501.1 & §60.757(F)(4))

Appendix A contains a current map of Newby Island's existing GCCS. Section 2.1.1 includes the GCCS downtime for the reporting period. The information contained in Section 2.1.2 includes the number of individual well shutdowns. Refer to Appendix C for the well SSM times and the reason for the SSM events.

2.1.1 GCCS Downtime

During the period covered in this report, the GCCS was not shut down for more than five days on any one occasion. The downtime for the reporting period of February 1, 2020 through July 31, 2020 was 30.70 hours. The total downtime for the 2020 calendar year, as of July 31, 2020, was 31.87 hours out of an allowable 240 hours per year. GCCS non-operational hours are tracked and recorded using the Yokogawa Continuous Control module.

Appendix D contains the A-2 and A-3 Flare Downtime Reports which list dates, times, and lengths of shutdowns for the reporting period and year-to-date. Appendix E contains the GCCS Downtime.

2.1.2 Well Start-Up & Disconnection Log

There were 80 wellfield SSM events that occurred during the reporting period. See Appendix C, Wellfield SSM Log, for details of decommissions, start-ups, replacements, and well disconnection and reconnection events. Well Decommissioning and Start-up Notification Letters were submitted to the BAAQMD and are included in Appendix B.

2.2 EMISSION CONTROL DEVICE DOWNTIME (BAAQMD 8-34-501.2 & §60.757(F)(3))

The emission control system consisted of three flares (A-1, A-2 and A-3), which began operation in 1997, 2007, and 2015, respectively.

The A-1 Callidus Flare was decommissioned on March 4, 2015. On May 29, 2015, IDCC sent a notification to the BAAQMD that the A-1 Callidus Flare had been permanently taken out of operation.

The control system was not bypassed at any time during the reporting period. Raw LFG was not emitted during the reporting period. The SSM Logs for the A-2 and A-3 Flares are located in Appendix D.

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

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

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

BAAQMD Regulation 8-34-501.11 and 8-34-509 are not applicable to the A-2 and A-3 Flares because the A-2 and A-3 Flares are subject to continuous temperature monitoring as required in BAAQMD Regulation 8-34-507 and §60.757(f)(1).

2.3 TEMPERATURE MONITORING RESULTS (BAAQMD 8-34-501.3, 8-34-507, & §60.757(F)(1))

The combustion zone temperatures of the flares are monitored with Thermo-Electric Thermocouples. The temperature is recorded with a Yokogawa digital recorder, which is downloaded and archived. There were no temperature deviations during the reporting period.

However, during the reporting period, there were intermittent periods of time when the A-2 Flare operated without flow recorded on July 11, 13, and 14, 2020. The flowmeter to the A-2 Flare was damaged during the annual calibration event that occurred on July 9, 2020. Site personnel inspected the flare station and immediately sent the A-2 flowmeter to the manufacturer for maintenance and repair. A back-up unit was acquired and installed on July 11, 2020. Additional maintenance activities were conducted to troubleshoot the flowmeter on July 13 and 14, 2020.

Appendix F contains the Flare Temperature Deviation/Inoperative Monitor/ Missing Data Reports for February 1, 2020 through July 31, 2020.

2.4 MONTHLY COVER INTEGRITY MONITORING (BAAQMD 8-34-510)

The cover integrity monitoring was performed on the following dates:

- February 24, 2020;
- March 18 and 30, 2020;
- April 17 and 27, 2020;
- May 21 and 22, 2020;
- June 29 and 30; and
- July 27, 2020.

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

2.5 LESS THAN CONTINUOUS OPERATION (BAAQMD 8-34-501.5)

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

2.6 SURFACE EMISSIONS MONITORING (BAAQMD 8-34-501.6, 8-34-506, §60.757(F)(5) & CALIFORNIA AIR RESOURCES BOARD ASSEMBLY BILL 32 METHANE CONTROL MEASURE (CARB AB-32 LF MCM))

Quarterly Surface Emissions Monitoring (SEM) was conducted for the Third and Fourth Quarters of 2019 on the following dates:

- First Quarter 2020 – March 11, 12, 13, 17, 26, and 27, 2020 and April 2, 3, and 20, 2020; and
- Second Quarter 2020 – May 11, 12, 19, 22, 27, 28, 2020 and June 5, 15, 23, 2020.

During the First Quarter 2020 SEM event, all integrated exceedances returned to compliance within the required re-monitoring timeframe. Therefore, GCCS expansion was not required to be completed 120 days after the initial exceedance pursuant to Regulation 8, Rule 34 (Solid Waste Disposal Sites), Section 415 (Repair Schedule for Wellhead Excesses). Refer to the First Quarter 2020 SEM Report located in Appendix H for detailed results.

During the Second Quarter 2020 SEM event, there were four integrated exceedances that did not return to compliance within the required re-monitored time frames. Therefore, GCCS expansion was required to be completed no later than 120 days after the initial exceedance pursuant to Regulation 8-34-415. IDCC submitted a Request for Limited Exemption and BAAQMD Regulation 8-34-118 Construction Plan to the BAAQMD prior to construction on July 7, 2020 and was approved on July 10, 2020. New wells shall be installed by September 24, 2020, which is 120 days from the initial integrated exceedances detected during the Second Quarter 2020 SEM event. Refer to the Second Quarter 2020 SEM Report located in Appendix H for detailed results.

Refer to Appendix C, the Wellfield SSM Log, for additional information regarding vertical well installation and startup during the reporting period. A copy of the Well Startup and Decommissioning Notification Letters submitted to the BAAQMD are included in Appendix B, BAAQMD Correspondence.

2.7 COMPONENT LEAK TESTING (BAAQMD 8-34-501.6 & 8-34-503)

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

- First Quarter 2020 – March 11, 13, 25, 2020; and
- Second Quarter 2020 – May 11, 12, 15, 18, and 22, 2019.

No issues were detected during the First and Second Quarter 2020 LFG Component Leak Monitoring Events. Refer to the First and Second Quarter 2020 LFG Component Leak Monitoring Forms, located in Appendix I, for detailed results.

2.8 WASTE ACCEPTANCE RECORDS (BAAQMD 8-34-501.7)

The Annual Waste Acceptance Rate was compiled for the timeframe of February 1, 2020 through July 31, 2020. The amount of non-degradable waste accepted during this period was approximately 604,325.62 tons. The non-degradable current Waste-In-Place (WIP) as of July 31, 2020 is approximately 35,228,730.32 tons.

2.9 NON-DEGRADABLE WASTE ACCEPTANCE RECORDS (BAAQMD 8-34-501.8)

The GCCS Design Plan for Newby Island does not have an allowance for non-degradable waste areas that are excluded from the collection system. Therefore, BAAQMD Regulation 8-34-501.8 is not applicable.

2.10 WELLHEAD MONITORING DATA (BAAQMD 8-34-501.4 & 8-34-505)

Wellhead monitoring was performed on a monthly basis pursuant to 8-34-505. The well readings for February 1, 2020 through July 31, 2020 are included in Appendix J. Each well was monitored in accordance with the following requirements:

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

Wellhead monitoring was performed on the following dates:

- February 4, 5, 6, 7, 10, 12, 13, 17, 18, 20, 21, 24, 25, 26, 27, and 28, 2020;
- March 2, 3, 4, 5, 6, 9, 10, 11, 12, 13, 16, 17, 18, 19, 20, 21, 23, and 30, 2020
- April 1, 2, 3, 7, 9, 13, 16, 20, 21, 22, 23, 24, 27, 28, and 30, 2020;
- May 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 26, 27, 28, and 29, 2020
- June 2, 3, 4, 5, 8, 9, 10, 11, 15, 16, 18, 19, 22, 23, 24, 25, 26, and 30, 2020; and
- July 1, 2, 7, 8, 9, 10, 13, 16, 17, 21, 22, 23, 24, 27, 28, and 29, 2020.

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

There were 55 individual wells with readings that exceeded the limits set forth in BAAQMD Regulation 8-34-305 during the reporting period. Corrective action for these wells was initiated within the required five-day time period and re-monitoring was completed within 15 days of the exceedance pursuant to BAAQMD Regulation 8-34-414. See Appendix K, Wellfield Deviation Log, for more detail.

2.10.2 Higher Operating Value (HOV) Wells

Oxygen HOV Wells

Pursuant to Title V Permit Condition Number 10423, Part 6(c)(i), the following wells are approved to operate at an oxygen HOV of 15 percent, provided that the oxygen concentration in the LFG at the main header does not exceed five percent oxygen by volume (dry basis) and the methane concentration is greater than 35 percent by volume (dry basis): 30RR, EW09, EW-13, 72R, 101R, 103R, 13R, EW-20R, 224R, 237R, and HC-201.

Pursuant to Title V Permit Condition Number 10423, Part 6(c)(i), the following wells are approved to operate at an oxygen HOV of 20 percent: NILHC231, NILHC232, NILHC235, NILHC237, and NILHC241.

Temperature HOV Wells

Pursuant to Title V Permit Condition Number 10423, Part 6(d)(i), the following wells are approved to operate at a temperature HOV of 145°F: 30RR, EW09, EW-13, 72R, 101R, 103R, 13R, EW-20R, 224R, 237R, HC-201, EW-39R, EW-00A, EW-00D, EW00E, EW-019, EW-025, EW-106, EW-218, EW-224, EW-243, EW-51R, EW-54R, NI3EW07R, NIL3EW31, NILEW106, NILEW464, NILEW466, NILEW479, NILEW481, NILEW482, NILEW488, NILEW489, NILEW497, NILEW511, NILEW568, NILEW570, NILEW599, NILEW601, NILEW604, NILEW617, NILEW621, NILEW622, NILEW623, NILEW626, NILEW628, NILEW663, NILEW664, NILEW665, NILEW666, and NILEW667.

Pursuant to Title V Permit Condition Number 10423, Part 6(d)(ii), the following well is approved to operate at a temperate HOV of 150°F: EW07R.

Effective September 1, 2019, the GCCS at Newby Island became subject to the monitoring and reporting requirements of NSPS Subpart XXX since it commenced construction, reconstruction, or modification after July 17, 2014. On December 27, 2019, IDCC submitted a request to the USEPA for temperature HOVs under NSPS Subpart XXX for existing HOVs previously approved under NSPS Subpart WWW. On February 6 and April 30, 2020, IDCC submitted HOV request for six additional wells to the BAAQMD and USEPA.

2.11 GAS FLOW MONITORING RESULTS (BAAQMD 8-34-501.10, 8-34-508, & §60.757(F)(1)

The flare LFG flow rate is measured with a Thermal Instruments flowmeter. The control panel displays the LFG flow and the digital Yokogawa data recorder records LFG flow every two minutes and is downloaded and saved to

a compact flash card. The flare flow meter meets the requirements of BAAQMD Regulation 8-34-508 by recording data at least every 15 minutes. The flow meter is maintained and calibrated pursuant to manufacturer's recommendations. The flow data for the flare is available for review at Newby Island. Appendix L contains a summary of the monthly LFG flow rates for the flares. Appendix F contains the Flare Temperature Deviation/Inoperative Monitor/Missing Data Reports for February 1, 2020 through July 31, 2020 Compliance with Title V Permit Condition Number 10423 Part 10.

During the reporting period, there were intermittent periods of time when the A-2 Flare operated without flow recorded on July 11, 13, and 14, 2020. The flowmeter to the A-2 Flare was damaged during the annual calibration event that occurred on July 9, 2020. Site personnel inspected the flare station and immediately sent the A-2 flowmeter to the manufacturer for maintenance and repair. A back-up unit was acquired and installed on July 11, 2020. Additional maintenance activities were conducted to troubleshoot the flowmeter on July 13 and 14, 2020.

IDCC personnel contacted the BAAQMD to request breakdown relief and report the inoperative monitor on July 9, 2020 and submitted a Reportable Compliance Activity (RCA) report on the following day. On July 10, 2020, the BAAQMD issued RCA IDs 07T96 and 07T97. The subsequent 10-Day Title V Report and 30-Day Title V Report/RCA Follow-Up Notification was submitted to the BAAQMD on July 20, 2020 and August 10, 2020, respectively.

2.11.1 Hydrogen Sulfide Monitoring Results

Pursuant to Title V Permit Condition Number 10423, Part 10(a), quarterly hydrogen sulfide (H_2S) readings were taken using Draeger tubes. First and Second Quarter H_2S readings and quarterly averages are included in Appendix N, H_2S Quarterly Monitoring.

On May 22, 2020, Tetra Tech notified IDCC of a permit deviation for the four-quarter integrated average hydrogen sulfide (H2S) value, which surpassed the limit of 300 ppmv during the Second Quarter 2020 H2S sampling event. On June 1, 2020, IDCC submitted the 10-day Title V Report to the BAAQMD. On June 19, 2020, IDCC submitted the 30-day Title V Report and a Change of Permit Conditions (COPC) to increase the annual integrated average for the total reduced sulfur (TRS) to 500 ppmv to the BAAQMD. IDCC is currently awaiting approval of the COPC application.

2.12 COMPLIANCE WITH §60.757(F)(6)

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

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

There were 80 wellfield SSM events that occurred during the reporting period. During the reporting period, nine horizontal collector and 31 vertical LFG wells were temporarily disconnected from the GCCS in which one horizontal collectors and 19 vertical LFG wells remain disconnected from the GCCS at the end of the reporting period, one horizontal collector and 15 vertical LFG wells were decommissioned, zero replacement well start-ups, four horizontal collectors were started-up pursuant to Change of Permit Conditions Application Number (A/N) 28706.

On January 17, 2018, A/N 28706 was issued by the BAAQMD. Pursuant to Title V Permit Condition Number 10423, Part 6(b) and the Change of Permit Conditions dated January 17, 2018, A/N 28706 allows for the unlimited replacement of vertical wells, the installation of up to 100 new vertical wells and up to 40 new horizontal collectors, and the decommissioning of up to 100 vertical wells and up to 30 horizontal collectors.

On May 20, 2020, IDCC submitted a COPC Application to request an increase in allowable well actions to install up to 100 vertical LFG extraction wells and 40 new horizontal collectors and to decommission up to 100 vertical LFG extraction wells and 20 horizontal collectors. IDCC is currently waiting for approval of the COPC application.

As of July 31, 2020, Newby Island consists of 233 vertical wells and 35 horizontal collectors.

2.13 COMPLIANCE WITH TITLE V PERMIT CONDITION NUMBER 14908 FOR S-4 NON-RETAIL GASOLINE DISPENSING FACILITY G#9641

Appendix O contains monthly throughput records for the S-4 Non-Retail Gasoline Dispensing Facility during the reporting period. From February 1, 2020 through July 31, 2020, the 12-month gasoline throughput of 10,746.2 gallons is within the limit of 940,000 gal per any consecutive 12-month period pursuant to the BAAQMD Toxic Section Policy.

2.14 S-8 HORIZONTAL GRINDER/OPERATIONS AND S-9 TROMMEL SCREEN/OPERATIONS

The S-8 Horizontal Grinder/Operations and S-9 Trommel Screen/Operations replaced the previously existing Sources S-5 and S-6 and are registered under the California Air Resources Board (CARB) Portable Equipment Registration Program (PERP). The S-8 Horizontal Grinder/Operation is permitted under CARB PERP Registration Number 149997. The S-9 Trommel Screen/Operation is permitted under CARB PERP Registration Number 125994. On February 21, 2017, the BAAQMD incorporated the Horizontal Grinder Operations and Trommel Screen Operations into Newby Island's Permit-to-Operate (PTO) as Source Numbers 1008 and 1009, respectively. The inclusion of these sources into the Facility Title V Permit is still pending as of the submittal of this report.

2.15 S-1003 COVERED AERATED STATIC PILE OPERATION

The Source 1003 (S-1003) Covered Aerated Static Pile (CASP) Operation was issued an Authority to Construct (ATC) by the BAAQMD on November 21, 2017. Source S-1003 operation was initiated on January 2, 2018. The feedstock material processed by S-1003 is obtained from S-15, the Mixed Waste Stockpiles.

The CASP method at Newby Island utilizes perforated pipes and blower systems to provide a positive aeration system. As the facility is currently operated with a positive aeration system only (i.e. negative aeration is not utilized), the finished compost layered on top of the active piles is identified as the A-1005 Biofilter, in accordance with ATC A/N 28472, Condition Number 26632, Part 4.

Per the BAAQMD ATC A/N 28472, Condition Number 26632, Parts 31(c) and 31(e), the owner/operator maintains records of pile disturbance for reasons other than harvesting and maintenance activities conducted on S-1003, A-1005, or any of the associated piping or blower and monitoring control systems. Maintenance records are available upon request. Additionally, temperature is recorded at each individual pile and recorded on an hourly basis pursuant to Condition Number 26632 Part 8. Temperature records are maintained at the site and are available upon request. The inclusion of the S-1003 CASP Operation into the Facility Title V Permit is still pending as of the submittal of this report.

On November 20, 2019, IDCC submitted a Request to Renew the ATC for the CASP operation (S-1003) and mixed waste stockpiles (S-15). The ATCs expired on November 21, 2019, however the site remains covered under a permit shield until a renewed ATC or PTO is issued. IDCC is currently awaiting a response on the ATC Renewal.

2.16 REPORTABLE EVENTS DURING THE REPORTING PERIOD

2.16.1 RCA 07T96-07T97

On July 10, 2020, Tetra Tech submitted an RCA form to the BAAQMD regarding damage to the A-2 Zink Flare flow meter during the annual flow meter calibration, causing the unit to become inoperable. On July 13, 2020, the BAAQMD assigned this RCA event ID 07T96 and 07T97 for the breakdown and inoperative monitor, respectively. IDCC submitted the combined 10-Day RCA Follow-Up Notification and 10-Day Title V Report on July 20, 2020 and submitted the combined 30-Day RCA Follow-Up Notification and 30-Day Title V Report to the BAAQMD on August 10, 2020. IDCC is currently awaiting breakdown relief response as of July 31, 2020.

2.16.2 RCA 07T98-07T99

On July 11, 2020, Tetra Tech submitted an RCA form to the BAAQMD due to the A-3 Flare's flow meter being damaged as the transmitter in the air combustion blower flow meter was intermittently sending a signal but not transmitting to the human machine interface (HMI), the 4-20 simulator was stable, and all wiring was working. On July 13, 2020, the BAAQMD assigned this RCA event ID 07T98 and 07T99 for the breakdown and inoperative monitor, respectively. IDCC submitted the combined 10-Day RCA Follow-Up Notification and 10-Day Title V Report on July 20, 2020 and submitted the combined 30-Day RCA Follow-Up Notification and 30-Day Title V Report to the BAAQMD on August 10, 2020. IDCC is currently awaiting breakdown relief response as of July 31, 2020.

2.17 NOTICES OF VIOLATION DURING THE REPORTING PERIOD

2.17.1 NOV A59431

On February 20, 2020, Mr. Daniel Anderson issued Notice of Violation (NOV) A59431 for an alleged violation of BAAQMD Regulation 8, Rule 34, Section 303 (Landfill Surface Requirements) due to an alleged surface leak at Sub-Area Riser (SAR)-8 during a BAAQMD inspection on January 30, 2020 that was greater than 500 ppmv. On February 28, 2020, IDCC submitted the 10-Day NOV Response Letter to the BAAQMD.

2.17.2 NOV A59432

On March 5, 2020, Mr. Daniel Anderson issued NOV A59432 for an alleged violation of BAAQMD Regulation 8, Rule 34, Section 301.1 (Landfill Gas Collection and Control System Requirements [LFGCCS]; Continuous Operation [8-34-301.1]) due to an alleged failure to operate the GCCS continuously on November 27, 2019 from approximately 18:39 until approximately 20:03. NOV A59432 is related to RCA Numbers 07Q20 and 07Q21, assigned by the BAAQMD, for an event where the knock-out-pot (KOP) at the Newby Island Flare station reached capacity. On March 13, 2020, IDCC submitted the 10-Day NOV Response Letter to the BAAQMD.

3.0 PERFORMANCE TEST REPORT

In accordance with BAAQMD Rule 8-34-413 and 40 CFR §60.757(g) in the NSPS, a Performance (Source) Test Report is required to be submitted from subject facilities containing performance and monitoring data for the operation of the GCCS. The A-1 Callidus Flare was decommissioned on March 4, 2015. On May 29, 2015, IDCC sent a notification to the BAAQMD that the A-1 Callidus Flare had been permanently taken out of operation.

The operational records listed in Table 3-1 have been reviewed, summarized, and are included in the Performance (Source) Test Report section of this report.

On January 21, 2020, Blue Sky Environmental, Inc. (Blue Sky) submitted a Source Test Protocol (STP) to the BAAQMD regarding the 2020 Performance (Source) Test, which was performed on February 3, 2020. Pursuant to Title V Permit Condition Number 10423, Part 11, the Source Test Section of the BAAQMD shall be contacted to obtain approval of the STP at least 14 days in advance of each source test. A copy of the 2020 Performance (Source) Test Report meeting the requirements of both BAAQMD Rule 8-34-413 and 40 CFR §60.758(g) was submitted to the Source Test Section of the BAAQMD on March 19, 2020 (within 45 days of the test date), pursuant to Title V Permit Condition Number 10423, Part 11. Additionally, a copy of the 2020 Source Test results for the A-2 and A-3 Flares is included in Appendix P.

Table 3-1. Performance Test Requirements.

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

3.1 FLARE (A-2 AND A-3) COMPLIANCE DEMONSTRATION TEST RESULTS (BAAQMD 8-34-412)

The Compliance Demonstration Test (Performance Test) was performed on the A-2 and A-3 Flares by Blue Sky on February 3, 2020 pursuant to BAAQMD Regulation 8-34-412.

The results of the Performance Tests for the A-2 and A-3 Flares indicate that the flares are in compliance with BAAQMD Regulation 8-34-301.3. The Performance Test Report for the A-2 and A-3 Flares that meets the requirements of both BAAQMD Rule 8-34-413 and 40 CFR §60.758(g) is included in Appendix P.

3.2 COMPLIANCE WITH §60.757(G)(1)

"A diagram of the collection system showing collection system positioning including wells, horizontal collectors…"

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

3.3 COMPLIANCE WITH §60.757(G)(2)

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

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

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

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

3.4 COMPLIANCE WITH §60.757(G)(3)

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

Segregated areas or accumulations of asbestos material are not included or present in the GCCS Design Plan and therefore were not documented for the site. There are no areas where LFG extraction wells are excluded due to asbestos or non-degradable materials, as there are no areas containing asbestos or non-degradable materials included in the GCCS Design Plan. Therefore, §60.757(g)(3) is not applicable.

3.5 COMPLIANCE WITH §60.757(G)(4)

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

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

3.6 COMPLIANCE WITH §60.757(G)(5)

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

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

3.7 COMPLIANCE WITH §60.757(G)(6)

"The provisions for the control of off-site migration."

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

- First Quarter 2020 – February 14, and March 25; and
- Second Quarter 2020 – April 30, and May 22, 2020.

No methane in excess of the lower explosive limit (LEL) of five percent by volume methane was detected at these perimeter gas probes during the First and Second Quarter LFG Probe and In-structure monitoring events. The results indicate that the site perimeter probes are in compliance with the requirements of California Code of Regulation (CCR) Title 27, Division 2, Chapter 3, Subchapter 4, Article 6, §20921. The First and Second Quarter 2020 LFG Probe and In-Structure Monitoring Reports are included in Appendix M of this report.

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

4.0 START-UP, SHUTDOWN, MALFUNCTION REPORT

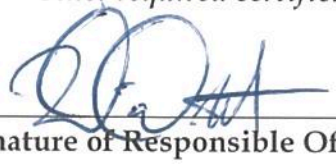
4.1 SSM PLAN FOR THE GCCS AT NEWBY ISLAND

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

- NESHAP 40 CFR part 63, AAAA became effective on January 16, 2004. Those SSM events that occurred during the NSPS semi-annual reporting period are reported in this section (February 1, 2020 through July 31, 2020). The following information is included as required:
- During the reporting period, 18 A-2 Flare SSM events occurred. The A-2 Flare was shut down and restarted during the reporting period due to the reasons noted in Appendix D, Flare SSM Log;
- During the reporting period, 109 A-3 Flare SSM events occurred. The A-3 Flare was shut down and restarted during the reporting period due to the reasons noted in Appendix D, Flare SSM Log;
- During the reporting period, 80 Wellfield SSM events occurred. Details are included in Appendix C, Well SSM Log;
- There were 207 events in total. In all 207 events, automatic systems and operator actions were consistent with the standard operating procedures contained in the SSM Plan. There were no deviations from the SSM plan;
- Exceedances were not identified during the reporting period to any applicable emission limitation in the landfills NESHAP (§63.10(d)(5)(i)); and
- Revisions of the SSM Plan to correct deficiencies in the landfill operations or procedures were neither required, nor prepared (§63.6(e)(3)(viii)).

I certify the following:

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



Signature of Responsible Official

8/24/2020

Date

Daniel North

Name of Responsible Official

5.0 LIMITATIONS

The work product included in the attached was undertaken in full conformity with generally accepted professional consulting principles and practices and to the fullest extent as allowed by law we expressly disclaim all warranties, express or implied, including warranties of merchantability or fitness for a particular purpose. The work product was completed in full conformity with the contract with our client and this document is solely for the use and reliance of our client (unless previously agreed upon that a third party could rely on the work product) and any reliance on this work product by an unapproved outside party is at such party's risk.

The work product herein (including opinions, conclusions, suggestions, etc.) was prepared based on the situations and circumstances as found at the time, location, scope and goal of our performance and thus should be relied upon and used by our client recognizing these considerations and limitations. Tetra Tech shall not be liable for the consequences of any change in environmental standards, practices, or regulations following the completion of our work and there is no warrant to the veracity of information provided by third parties, or the partial utilization of this work product.

APPENDIX A

SITE MAP

LEGEND

- EXISTING 10' CONTOUR
- GP-16 — EXISTING LANDFILL GAS MONITORING PROBE
- EXISTING GAS/LEACHATE EXTRACTION WELL
- EXISTING VERTICAL GAS EXTRACTION WELL (ABOVE GRADE)
- EXISTING VERTICAL GAS EXTRACTION WELL (BELOW GRADE/REMOTE WELLHEAD)
- EXISTING HORIZONTAL GAS COLLECTOR
- EXISTING GAS HEADER LINE, ON GRADE, SIZE VARIES
- EXISTING GAS HEADER LINE, BELOW GRADE, SIZE VARIES
- HC-231 — EXISTING SIDE SLOPE COLLECTOR
- EXISTING ROAD CROSSING
- EXISTING VALVE
- EXISTING BLIND FLANGE
- EXISTING FLANGE CONNECTION
- EXISTING REDUCER
- EXISTING CAPPED PIPE
- EXISTING REMOTE WELLHEAD
- EW-536 — EXISTING SHALLOW LFG EXTRACTION WELL
- EXISTING REMOTE WELLHEAD MANIFOLD
- LEW-13 — EXISTING LEACHATE EXTRACTION WELL
- CS-8 — EXISTING CONDENSATE SUMP

N

0 250 500

SCALE IN FEET

SEE SHEET 1B FOR ENLARGED PLAN VIEW OF THIS AREA

FLARE STATION

TANK FARM

NOTES:

1. THE 2018 BASE TOPOGRAPHIC MAP WAS CREATED BY COOPER AERIAL SURVEYS CO. USING PHOTOGRAMMETRIC METHODS. DATE OF PHOTOGRAPHY: APRIL 17, 2018. HORIZONTAL DATUM: NAD27, ZONE 3, VERTICAL DATUM: LOCAL LANDFILL DATUM. SUPPLEMENTAL TOPOGRAPHY PROVIDED BY TETRA TECH. DATE OF SURVEY: OCTOBER 2018.
2. THE 2010 BASE AS-BUILT WELL AND PIPE LOCATIONS WERE PROVIDED BY REPUBLIC. WELLS EW-487 THROUGH EW-489 ARE PER DESIGN LOCATIONS, NO SURVEY WAS RECEIVED FOR THESE WELLS. AS-BUILT LOCATIONS FOR HC-223 AND LCRS-17 ARE APPROXIMATE, NO SURVEY WAS RECEIVED FOR THESE WELLS.
3. THE LOCATION OF WELLS EW-500 AND EW-505 PROVIDED BY REPUBLIC ON NOVEMBER 27, 2018.
4. THE 2017 GCCS AS-BUILT WELL AND PIPE LOCATIONS WERE PROVIDED BY RUGGERI, JENSEN, AZAR AND ASSOCIATES, DATES OF SURVEY: JANUARY 11, 20, AND FEBRUARY 24, 2017.
5. THE 2018 PHASE I GCCS IMPROVEMENTS PER SURVEY PREPARED BY RUGGERI, JENSEN, AZAR, AND ASSOCIATES, DATE OF SURVEY: MARCH 14, 2018.
6. THE 2018 PHASE II GCCS IMPROVEMENTS PER SURVEY PREPARED BY RUGGERI, JENSEN, AZAR, AND ASSOCIATES, DATE OF SURVEY: AUGUST 6, 2018.
7. THE 2018 PHASE III GCCS IMPROVEMENTS PER SURVEY PREPARED BY RUGGERI, JENSEN, AZAR, AND ASSOCIATES, DATE OF SURVEYS: JANUARY 18 AND MARCH 1, 2019.
8. THE 2019 MODULE 17 GCCS EXPANSION PER SURVEYS PREPARED BY RUGGERI, JENSEN, AZAR, AND ASSOCIATES, DATE OF SURVEYS: JUNE 4, SEPTEMBER 3, 18, 19, AND OCTOBER 16, 2019. SURVEY DATA WAS INCOMPLETE, FIELD MARKUPS PROVIDED BY REPUBLIC IS UTILIZED TO ADDRESS AREAS OF INCOMPLETE SURVEY DATA.

DRAFT - RECORD DRAWING

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

DATE OF ISSUE MAR. 2020
DRAWN BY SEY
DESIGNED BY GC
CHECKED BY GC
APPROVED BY PJS

TETRA TECH

ALL PROFESSIONAL ENGINEERING WORK IS PERFORMED BY DULY LICENSED PROFESSIONAL ENGINEERS UNDER THE APPROPRIATE STATE REGISTERED PROFESSIONAL ENTITY.

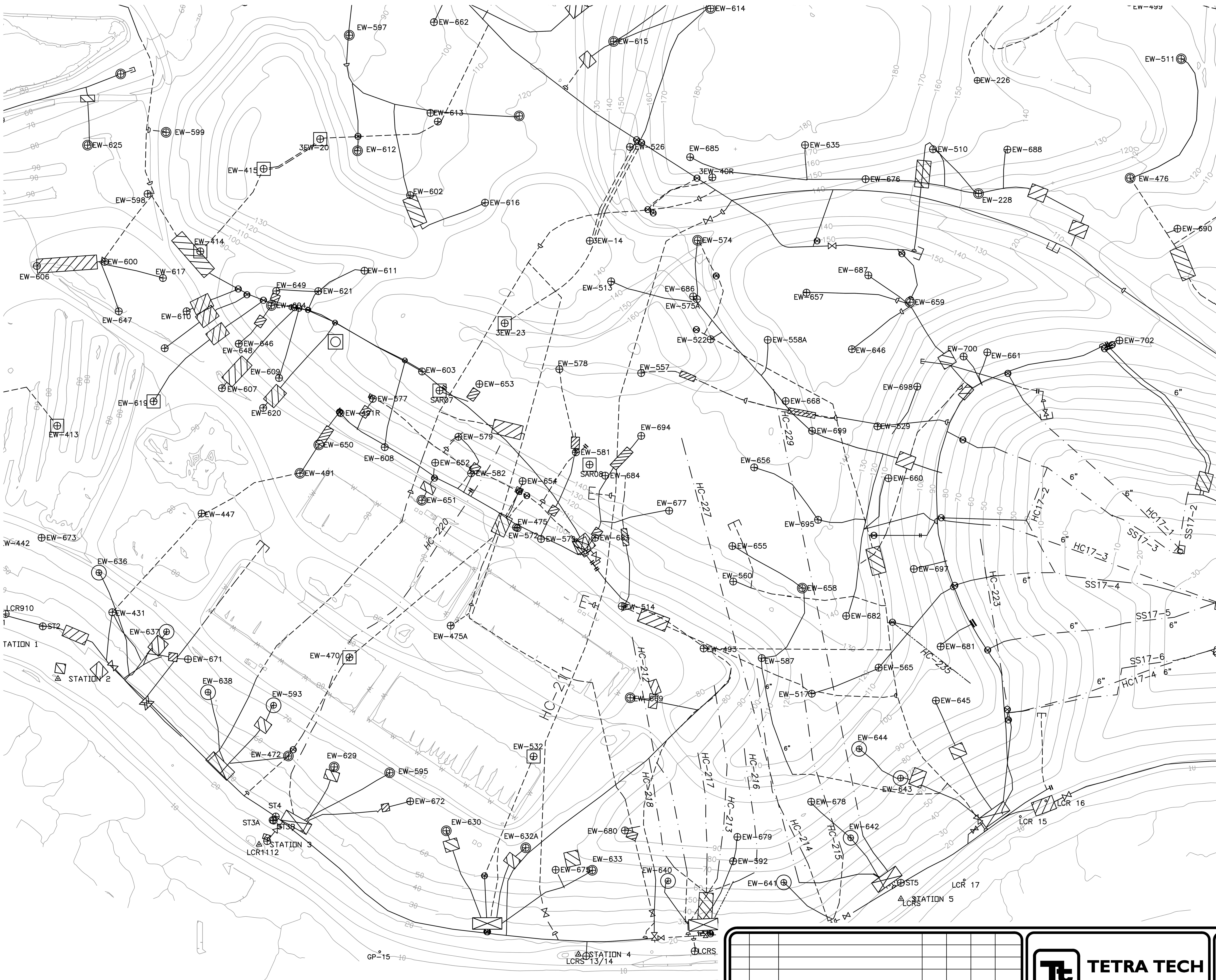
NEWBY ISLAND LANDFILL
SANTA CLARA COUNTY, CALIFORNIA
SUBAREA 17

2019 SUBAREA 17 GCCS EXPANSIONS
GCCS RECORD LAYOUT

SHEET NO. **1A**

PROJECT NO. 190627

1" 1/2" 0" 1"



LEGEND

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- EXISTING GAS/LEACHATE EXTRACTION WELL
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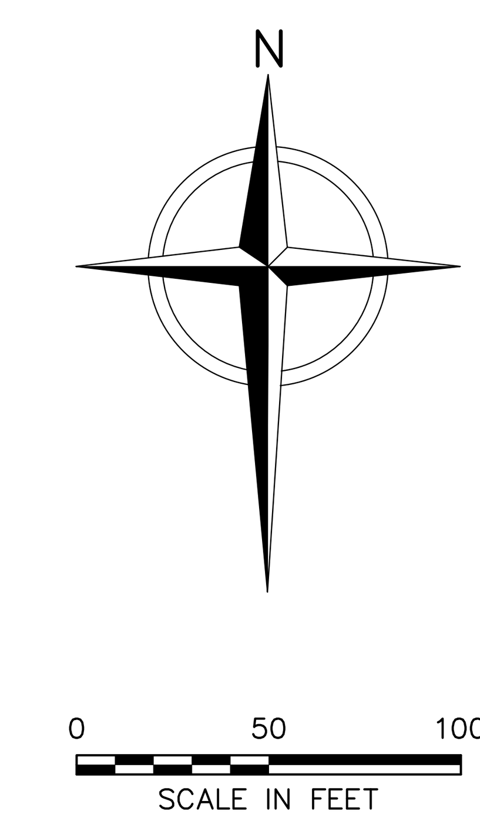

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DRAFT - RECORD DRAWING

REV	DATE	DESCRIPTION	DWN BY	DES BY	CHK BY	APP BY

DATE OF ISSUE MAR. 2020 — DRAWN BY SEY — DESIGNED BY GC — CHECKED BY GC — APPROVED BY PJS

TETRA TECH

NEWBY ISLAND LANDFILL
SANTA CLARA COUNTY, CALIFORNIA
SUBAREA 17

2019 SUBAREA 17 GCCS EXPANSIONS
GCCS RECORD LAYOUT

SHEET NO. **1B**

PROJECT NO. 190627

APPENDIX B

BAAQMD CORRESPONDENCE

REPUBLIC SERVICES

Newby Island Landfill 1601 Dixon Landing Road, Milpitas, CA 95035
o 408.262.1401 f 408.270.8992 republicservices.com

February 5, 2020

Ms. Tamiko Endow
Principal Air Quality Engineer
Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, CA 94105

Re: Change of Permit Conditions Request
Temperature Higher Operating Value (HOV) Request for Four Landfill Gas Wells
Newby Island Sanitary Landfill and Recyclery, Milpitas, California
Plant Number A9013

Dear Ms. Endow:

Tetra Tech, on behalf of the International Disposal Corporation of California, Inc. (IDCC), submits this application to the Bay Area Air Quality Management District (BAAQMD) for a change of permit conditions (COPC) request to operate four vertical landfill gas (LFG) extraction wells at a temperature higher operating value (HOV) of 145 degrees Fahrenheit (°F) at the Newby Island Sanitary Landfill and Recyclery (Newby Island). This request is being made for wells to be approved for temperature HOVs under New Source Performance Standards (NSPS) Subpart WWW. The NSPS for Landfills, 40 Code of Federal Regulations (CFR) Part 60.753(c) and BAAQMD Regulation 8, Rule 34, Section 305.2 (8-34-305) sets an upper temperature limit of 131°F for the gas extraction wells, unless an alternative limit is requested. The purpose for setting an upper temperature limit is to provide guidelines to the landfill operator to verify that a subsurface oxidization event (SSO) is not occurring due to the operation of the gas collection and control system (GCCS).

IDCC requests an increase of the allowable wellhead temperature limit from 131°F to 145°F for the following four vertical LFG extraction wells:

Well ID
NILEW690
NILEW691
NILEW701
NILEW703

Background

The following discussion on the relationship between LFG production and temperatures will serve to justify this request for higher temperatures for these wells.

Decomposition of the waste occurs in four stages. During the first two stages, decomposition of the waste occurs aerobically. Aerobic decomposition is exothermic (i.e. heat is produced). The degree of the exothermic reaction is governed by the ambient air temperatures during waste placement, the amount of moisture present, the types of waste deposited, etc. The heat generated during the aerobic phases sets the stage for the types of anaerobic bacteria populations that flourish during later decomposition phases.

There are three types of anaerobic bacterial populations which produce LFG. Methane producing bacteria are called methanogens. The psychrophilic bacteria (organisms that are capable of growth in low temperatures) are found at temperatures below 59°F. This population produces the least amount of LFG and is not normally found in landfills in North America. Methanogens that generate LFG at temperatures below 110°F are known as mesophilic bacteria, while those that generate gas at temperatures in excess of 110°F are called thermophilic bacteria. The mesophilic bacteria predominate in most of the landfills in North America, with the exception of those found in the southernmost states. Therefore, it is not uncommon to find normal LFG temperatures in excess of 140°F to 160°F. It is also not uncommon to find pockets of thermophilic bacteria in any landfill, based on the conditions which existed during waste placement.

In accordance with NSPS/EG and BAAQMD Regulation 8 Rule 34, LFG monthly monitoring occurs at the active LFG wells at Newby Island. The vertical LFG extraction wells NILEW690, NILEW691, NILEW701, and NILEW703 have exhibited elevated readings on a consistent basis. However, the wells are viable and important to the GCCS at Newby Island to collect LFG produced by the Source-2 (S-2) landfill. As vacuum increases at the wells, temperature is projected to increase as well. Tetra Tech operations and maintenance (O&M) personnel have been tuning the wells to prevent prolonged temperature exceedances. As a result, the ability to pull vacuum on these wells has been limited due to the current limit of 131°F. A new temperature limit of 145°F is being requested as it is believed that the wells will be able to operate at their full potential, allowing optimal LFG production and mitigating potential surface emissions. Based on previous attempts by O&M personnel to bring these wells back within allowable temperature parameters, it was concluded that without temperature being the limiting factor, the gas collection efficiency of these wells would greatly improve.

Additionally, carbon monoxide (CO) samples were taken at each well via Draeger tubes and results indicated extremely low levels of CO at each of the four wells (0 to 10 parts per million by volume [ppmv]), indicating that no SSO is occurring. CO concentrations of 500 ppmv or greater indicate likely SSOs, while concentrations between 100 and 499 ppmv would indicate concerns of SSOs. CO sample results are included in this application as Attachment A and in the table below.

Well ID	CO Sample (ppmv)
NILEW690	0
NILEW691	10
NILEW701	0
NILEW703	0

Proposed Change of Conditions

IDCC requests an HOV for temperature for the four vertical LFG extraction wells identified herein be increased from the standard 131°F to 145°F, as decommissioning these viable vertical LFG extraction wells due to elevated temperature readings above the NSPS limit of 131°F would be counterproductive. Additionally, IDCC requests the Newby Island Title V Permit Condition Number 10423 Part 6(d)(i) be altered to include the four wells (Wells NILEW690, NILEW691, NILEW701, and NILEW703). Historical data for these four vertical LFG extraction wells is included in this application as Attachment B.

A Title V Permit Renewal Application was submitted to the BAAQMD on June 19, 2017. As IDCC is currently awaiting a renewed Title V Permit for Newby Island, including NSPS Subpart XXX requirements, this request is being submitted to obtain approval for an HOV of 145°F to allow LFG extraction Wells NILEW690, NILEW691, NILEW701, and NILEW703 to continue operation, while remaining in compliance with permitted limits. In addition, a temperature HOV request for the aforementioned wells to be approved under NSPS Subpart XXX was also submitted to the United States Environmental Protection Agency (USEPA), Region IX.

Application Forms

BAAQMD Stationary Source Summary Forms, Form P-101B, and Appendix H are included in Attachment C this application.

Section 5 of Form P-101B states that the five items listed in the section must be addressed in all applications. These items are addressed as follows: (1) no site location map is required as this is not a new plant; (2) a facility map showing the equipment and it's emissions points attached; (3) data forms and a pollutant flow diagram are attached; (4) a description of the proposed permit condition change is provided above; and (5) there are no emissions increases associated with the proposed permit condition change.

The IDCC understands that the BAAQMD will issue an invoice for the application fees during the review of the permit application.

If you have any questions or require additional information, please do not hesitate to contact Rachelle Huber at (408) 586-2263 or by email at rhuber2@republicservices.com or Meghan Caesar at (925) 241-1074 or by email at meghan.caesar@tetratech.com.

Sincerely,

Rachelle Huber

Rachelle Huber
Environmental Manager
Newby Island Landfill

Attachments: Attachment A – CO Sample Results
Attachment B – Historical Wellfield Data
Attachment C – BAAQMD Application Forms
Attachment D – Pollutant Flow Diagram
Attachment E – Site Map

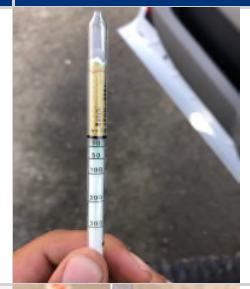
cc: Anthony Boccaleoni, IDCC
Jennifer Baker, BEL- Engineering
Meghan Caesar, Tetra Tech
Maria Bowen, Tetra Tech
Roshni Brahmbhatt, USEPA Region IX
Mark Sims, USEPA Region IX

Attachment A
CO Sample Results

TETRA TECH

Draeger Tubes

Newby Island

Point ID	Date	Chemical Tested For	Approximate Concentration	Concentration Units	Draeger Notes	Technician	Image
NILEW701	11/7/2019 3:58:58 PM	CO	0	ppm		Mike Yes	
NILEW690	11/7/2019 3:46:09 PM	CO	0	ppm		Mike Yes	
NILEW703	11/7/2019 3:50:10 PM	CO	0	ppm		Mike Yes	
NILEW691	12/17/2019 5:23:30 PM	CO	10	ppm		Jorge Contreras	

Attachment B
Historical Wellfield Data

HOV HISTORICAL WELLFIELD DATA

as of February 6, 2020

Point ID	Record Date	CH4 [%]	CO2 [%]	O2 [%]	Bal Gas [%]	Init Temp [°F]	Init Static Press ["H2O]	Sys Pressure ["H2O]	Init Flow [scfm]	Comments
NILEW690	11/4/2019 2:18:50 PM	57.4	42.6	0.0	0.0	121.0	54.10	-42.57	2.31	Valve Adjustment:"";Well Comment:"First reading on new well";Well Condition:"";Well Repairs:""
NILEW690	11/4/2019 2:30:32 PM	57.4	42.6	0.0	0.0	115.0	57.81	-43.67	1.58	Valve Adjustment:"Opened valve >10%,Valve 15% open";Well Condition:"";Well Repairs:""
NILEW690	11/4/2019 2:32:06 PM	57.2	42.8	0.0	0.0	130.0	28.34	-43.67	18.68	Valve Adjustment:"No change,Valve 15% open";Well Condition:"";Well Repairs:""
NILEW690	11/4/2019 4:46:32 PM	57.3	42.7	0.0	0.0	139.0	25.38	-44.30	18.01	Valve Adjustment:"Opened valve >10%,Valve 30% open";Well Condition:"";Well Repairs:""
NILEW690	11/4/2019 4:50:23 PM	57.0	43.0	0.0	0.0	139.0	12.20	-42.57	21.27	Valve Adjustment:"NSPS/CAI,No change,Valve 30% open";Well Condition:"";Well Repairs:""
NILEW690	11/5/2019 4:42:35 PM	58.1	41.9	0.0	0.0	139.0	8.19	-39.59	22.54	Valve Adjustment:"NSPS/CAI,Opened valve 10% or less,Valve 30% open";Well Condition:"";Well Repairs:""
NILEW690	11/5/2019 4:44:09 PM	58.4	41.6	0.0	0.0	139.0	-1.19	-39.88	26.31	Valve Adjustment:"NSPS/CAI,No change,Valve 30% open";Well Condition:"";Well Repairs:""
NILEW690	11/19/2019 3:39:41 PM	59.4	39.8	0.0	0.8	136.0	8.57	-34.24	27.03	Valve Adjustment:"NSPS/CAI,Opened valve 10% or less,Valve 40% open";Well Condition:"";Well Repairs:""
NILEW690	11/19/2019 3:41:02 PM	59.3	39.8	0.0	0.9	137.0	-1.57	-34.96	32.90	Valve Adjustment:"NSPS/CAI,No change,Valve 40% open";Well Condition:"";Well Repairs:""
NILEW690	12/2/2019 3:16:43 PM	58.3	39.4	0.0	2.3	132.3	-7.09	-42.49	26.65	Valve Adjustment:"NSPS/CAI,Opened valve 10% or less,Valve 50% open";Well Condition:"";Well Repairs:""
NILEW690	12/2/2019 3:18:09 PM	58.6	39.7	0.0	1.7	132.4	-15.88	-40.98	30.25	Valve Adjustment:"NSPS/CAI,No change,Valve 50% open";Well Condition:"";Well Repairs:""
NILEW690	12/16/2019 3:28:42 PM	57.1	40.3	0.0	2.6	133.8	-19.68	-40.05	28.56	Valve Adjustment:"NSPS/CAI,Opened valve 10% or less,Valve 60% open";Well Condition:"";Well Repairs:""
NILEW690	12/16/2019 3:30:24 PM	57.9	40.3	0.0	1.8	133.7	-22.51	-40.81	29.47	Valve Adjustment:"NSPS/CAI,No change,Valve 60% open";Well Condition:"";Well Repairs:""
NILEW690	1/6/2020 10:21:41 AM	58.5	39.3	0.0	2.2	135.1	-23.99	-40.34	27.56	Valve Adjustment:"NSPS/CAI,Opened valve 10% or less,Valve 70% open";Well Condition:"";Well Repairs:""
NILEW690	1/6/2020 10:22:51 AM	58.7	39.4	0.0	1.9	135.1	-23.99	-38.28	26.42	Valve Adjustment:"NSPS/CAI";Well Condition:"";Well Repairs:""
NILEW690	1/21/2020 1:30:44 PM	53.9	36.3	1.9	7.9	134.8	-23.31	-37.90	27.75	Valve Adjustment:"NSPS/CAI,Closed valve 10% or less,Valve 70% open";Well Condition:"";Well Repairs:""
NILEW690	1/21/2020 1:32:17 PM	54.0	35.9	1.9	8.2	134.6	-22.97	-39.00	29.79	Valve Adjustment:"NSPS/CAI";Well Condition:"";Well Repairs:""
NILEW690	2/4/2020 3:46:55 PM	59.5	39.8	0.1	0.6	134.6	-19.73	-35.36	28.98	Valve Adjustment:"Opened valve 10% or less,Valve 80% open";Well Condition:"";Well Repairs:""
NILEW690	2/4/2020 3:48:17 PM	59.5	39.9	0.1	0.5	134.4	-19.82	-34.06	27.88	Valve Adjustment:"No change,Valve 80% open";Well Condition:"";Well Repairs:""
NILEW691	10/30/2019 11:19:08 AM	59.9	40.1	0.0	0.0	93.0	5.46	-16.50	0.22	Valve Adjustment:"No change,Valve at minimum position";Well Comment:"first reading on new well ";Well Condition:"";Well Repairs:""
NILEW691	10/30/2019 11:32:10 AM	59.8	40.2	0.0	0.0	93.0	5.46	-17.13	0.27	Valve Adjustment:"Opened valve >10%,Valve 40% open";Well Condition:"";Well Repairs:""
NILEW691	10/30/2019 11:35:43 AM	60.0	40.0	0.0	0.0	112.0	2.74	-15.86	10.40	Valve Adjustment:"No change,Valve 40% open";Well Condition:"";Well Repairs:""
NILEW691	10/30/2019 1:20:24 PM	59.7	40.3	0.0	0.0	120.0	2.50	-15.48	4.02	Valve Adjustment:"Opened valve >10%,Valve 40% open";Well Condition:"";Well Repairs:""
NILEW691	10/30/2019 1:23:28 PM	59.6	40.4	0.0	0.0	120.0	1.26	-14.42	7.87	Valve Adjustment:"No change,Valve 40% open";Well Condition:"";Well Repairs:""
NILEW691	10/31/2019 11:27:07 AM	59.5	40.5	0.0	0.0	110.0	0.40	-20.27	3.25	Valve Adjustment:"Opened valve 10% or less,Valve 35% open";Well Condition:"";Well Repairs:""
NILEW691	10/31/2019 11:29:24 AM	60.0	40.0	0.0	0.0	110.0	-0.37	-20.36	6.64	Valve Adjustment:"No change,Valve 35% open";Well Condition:"";Well Repairs:""
NILEW691	11/8/2019 3:19:27 PM	61.6	38.4	0.0	0.0	112.0	-0.57	-28.37	31.01	Valve Adjustment:"Opened valve 10% or less,Valve 45% open";Well Condition:"";Well Repairs:""
NILEW691	11/22/2019 2:32:14 PM	59.8	38.4	0.5	1.3	108.0	-4.92	-30.11	49.16	Valve Adjustment:"Opened valve 10% or less,Valve 50% open";Well Condition:"";Well Repairs:""
NILEW691	11/22/2019 2:34:26 PM	59.8	39.0	0.4	0.8	108.0	-7.64	-32.27	64.14	Valve Adjustment:"No change,Valve 50% open";Well Condition:"";Well Repairs:""
NILEW691	12/10/2019 11:55:02 AM	57.0	39.3	0.0	3.7	130.8	-8.78	-28.02	53.69	Valve Adjustment:"NSPS/CAI,Opened valve 10% or less,Valve 60% open";Well Condition:"";Well Repairs:""
NILEW691	12/10/2019 11:57:32 AM	57.2	39.5	0.0	3.3	131.2	-11.61	-25.96	67.05	Valve Adjustment:"NSPS/CAI,No change,Valve 60% open";Well Condition:"";Well Repairs:""
NILEW691	12/12/2019 2:38:06 PM	59.2	40.8	0.0	0.0	133.0	-12.97	-27.48	64.17	Valve Adjustment:"NSPS/CAI,No change,Valve 60% open";Well Condition:"";Well Repairs:""
NILEW691	12/23/2019 2:35:53 PM	60.8	39.1	0.1	0.0	132.6	-15.53	-32.78	72.07	Valve Adjustment:"NSPS/CAI,Opened valve 10% or less,Valve 70% open";Well Condition:"";Well Repairs:""
NILEW691	12/23/2019 2:38:24 PM	59.9	39.7	0.1	0.3	132.8	-16.38	-32.87	78.76	Valve Adjustment:"NSPS/CAI,No change,Valve 70% open";Well Condition:"";Well Repairs:""
NILEW691	1/9/2020 11:56:41 AM	57.2	39.1	0.1	3.6	132.1	-17.65	-34.12	77.91	Valve Adjustment:"NSPS/CAI,Closed valve 10% or less,Valve 60% open";Well Condition:"";Well Repairs:""
NILEW691	1/9/2020 11:57:52 AM	57.3	39.2	0.0	3.5	132.1	-16.55	-33.02	71.92	Valve Adjustment:"NSPS/CAI";Well Condition:"";Well Repairs:""
NILEW691	1/23/2020 2:53:44 PM	61	38.9	0	0.1	130.3	-13.48	-29.05	70.09	Valve Adjustment:"Opened valve 10% or less,Valve 70% open";Well Condition:"";Well Repairs:""
NILEW691	1/23/2020 2:55:37 PM	58.1	36.7	0	5.2	130.3	-14.51	-28.8	76.93	Valve Adjustment:"No change,Valve 70% open";Well Condition:"";Well Repairs:""
NILEW691	1/29/2020 2:38:09 PM	54.6	37.2	0.2	8	132.3	-13.79	-28.19	77.61	Valve Adjustment:"NSPS/CAI,Opened valve 10% or less,Valve 80% open";Well Condition:"";Well Repairs:""
NILEW691	1/29/2020 2:39:35 PM	58.2	38	0.1	3.7	132.4	-14.52	-25.93	81.46	Valve Adjustment:"NSPS/CAI";Well Condition:"";Well Repairs:""
NILEW701	10/25/2019 3:04:16 PM	45.4	31.8	4.5	18.3	101.0	1.21	-17.96	16.32	Valve Adjustment:"No change,Valve at minimum position";Well Comment:"First reading on new well";Well Condition:"";Well Repairs:""
NILEW701	10/25/2019 3:07:37 PM	45.7	32.1	4.3	17.9	101.0	1.26	-19.02	18.28	Valve Adjustment:"Valve at minimum position,Opened valve 10% or less";Well Condition:"";Well Repairs:""
NILEW701	10/25/2019 3:12:16 PM	58.0	42.0	0.0	0.0	116.0	-0.35	-16.58	9.84	Valve Adjustment:"No change,Valve at minimum position";Well Condition:"";Well Repairs:""
NILEW701	10/25/2019 4:28:56 PM	58.1	41.9	0.0	0.0	115.0	-1.29	-17.29	9.66	Valve Adjustment:"Opened valve 10% or less,Valve 5% open";Well Condition:"";Well Repairs:""
NILEW701	11/5/2019 10:21:34 AM	52.1	40.8	0.0	7.1	136.0	-8.49	-16.41	17.79	Valve Adjustment:"NSPS/CAI,No change,Valve 5% open";Well Condition:"";Well Repairs:""
NILEW701	11/5/2019 10:22:57 AM	52.0	40.9	0.0	7.1	136.0	-8.49	-17.75	24.82	Valve Adjustment:"NSPS/CAI,No change,Valve 5% open";Well Condition:"";Well Repairs:""
NILEW701	11/19/2019 3:17:39 PM	57.3	41.7	0.0	1.0	132.0	2.30	-34.79	9.50	Valve Adjustment:"NSPS/CAI,Opened valve >10%,Valve 20% open";Well Condition:"";Well Repairs:""
NILEW701	11/19/2019 3:19:38 PM	57.6	41.4	0.0	1.0	136.0	-1.92	-34.67	18.35	Valve Adjustment:"NSPS/CAI,No change,Valve 20% open";Well Condition:"";Well Repairs:""
NILEW701	12/2/2019 2:54:21 PM	57.0	40.4	0.0	2.6	141.2	-9.97	-43.00	17.48	Valve Adjustment:"NSPS/CAI,Valve 20% open";Well Condition:"";Well Repairs:""
NILEW701	12/2/2019 2:55:44 PM	57.1	40.2	0.0	2.7	141.2	-10.22	-42.87	17.75	Valve Adjustment:"NSPS/CAI,No change,Valve 20% open";Well Condition:"";Well Repairs:""
NILEW701	12/16/2019 3:12:01 PM	57.6	40.8	0.0	1.6	141.6	-8.87	-41.61	17.59	Valve Adjustment:"NSPS/CAI,Opened valve 10% or less,Valve 25% open";Well Condition:"";Well Repairs:""
NILEW701	12/16/2019 3:13:18 PM	58.1	40.5	0.0	1.4	141.9	-11.02	-40.89	19.43	Valve Adjustment:"NSPS/CAI,No change,Valve 25% open";Well Condition:"";Well Repairs:""

HOV HISTORICAL WELLFIELD DATA

as of February 6, 2020

NILEW701	1/6/2020 10:01:46 AM	57.2	39.3	0.0	3.5	146.3	-11.82	-37.11	15.81	Valve Adjustment:"NSPS/CAI,Closed valve 10% or less,Valve 15% open";Well Condition:"";Well Repairs:""
NILEW701	1/6/2020 10:03:03 AM	58.4	39.5	0.0	2.1	144.9	-8.11	-36.68	10.56	Valve Adjustment:"NSPS/CAI";Well Condition:"";Well Repairs:""
NILEW701	1/21/2020 12:08:01 PM	54.9	37.7	1.0	6.4	144.5	-10.39	-35.84	18.94	Valve Adjustment:"NSPS/CAI,Closed valve 10% or less,Valve 20% open";Well Condition:"";Well Repairs:""
NILEW701	1/21/2020 12:09:20 PM	55.3	37.9	0.9	5.9	144.0	-8.70	-35.38	16.63	Valve Adjustment:"NSPS/CAI";Well Condition:"";Well Repairs:""
NILEW701	2/4/2020 4:03:42 PM	59.2	40.8	0	0	144.3	-7.45	-34.94	17.68	Valve Adjustment:"NSPS/CAI,Closed valve 10% or less,Valve 10% open";Well Condition:"";Well Repairs:""
NILEW701	2/4/2020 4:05:33 PM	58.9	41.1	0	0	143.2	-3.27	-34.56	11.92	Valve Adjustment:"NSPS/CAI";Well Condition:"";Well Repairs:""
NILEW703	10/25/2019 12:56:03 PM	56.9	40.7	0.0	2.4	131.3	14.74	-15.73	6.21	Valve Adjustment:"No change,Valve at minimum position";Well Comment:"First reading on new well";Well Condition:"";Well Repairs:""
NILEW703	10/25/2019 1:09:19 PM	56.9	40.5	0.0	2.6	131.3	14.82	-16.91	6.63	Valve Adjustment:"NSPS/CAI,Opened valve >10%,Valve 60% open";Well Condition:"";Well Repairs:""
NILEW703	10/25/2019 1:11:27 PM	56.6	40.8	0.0	2.6	135.0	-0.12	-27.89	35.11	Valve Adjustment:"No change,Valve 60% open";Well Condition:"";Well Repairs:""
NILEW703	10/25/2019 4:11:36 PM	58.3	41.7	0.0	0.0	135.2	-2.86	-22.09	73.44	Valve Adjustment:"Opened valve 10% or less,Valve 70% open";Well Condition:"";Well Repairs:""
NILEW703	11/5/2019 10:04:16 AM	57.0	42.2	0.0	0.8	135.0	-4.58	-18.89	70.95	Valve Adjustment:"NSPS/CAI,Opened valve 10% or less,Valve 75% open";Well Condition:"";Well Repairs:""
NILEW703	11/5/2019 10:06:11 AM	57.1	42.7	0.0	0.2	135.0	-4.39	-18.30	74.17	Valve Adjustment:"NSPS/CAI,Opened valve 10% or less,Valve 80% open";Well Condition:"";Well Repairs:""
NILEW703	11/19/2019 3:27:54 PM	57.9	41.0	0.0	1.1	118.0	14.95	-37.95	3.03	Valve Adjustment:"NSPS/CAI,Opened valve >10%,Valve 60% open";Well Condition:"";Well Repairs:""
NILEW703	11/19/2019 3:29:14 PM	58.0	41.0	0.0	1.0	133.0	-1.92	-47.41	105.72	Valve Adjustment:"NSPS/CAI,No change,Valve 60% open";Well Condition:"";Well Repairs:""
NILEW703	12/2/2019 3:01:22 PM	54.2	39.4	0.0	6.4	130.0	-12.50	-54.14	101.22	Valve Adjustment:"No change,Valve 60% open";Well Condition:"";Well Repairs:""
NILEW703	12/16/2019 3:18:58 PM	54.5	39.6	0.0	5.9	129.7	-11.36	-52.59	103.38	Valve Adjustment:"No change,Valve 60% open";Well Condition:"";Well Repairs:""
NILEW703	1/6/2020 10:10:02 AM	53.8	38.5	0.0	7.7	131.9	-9.46	-44.51	93.28	Valve Adjustment:"NSPS/CAI,Closed valve 10% or less,Valve 50% open";Well Condition:"";Well Repairs:""
NILEW703	1/6/2020 10:11:16 AM	53.5	38.2	0.0	8.3	132.3	-6.80	-46.66	74.42	Valve Adjustment:"NSPS/CAI";Well Condition:"";Well Repairs:""
NILEW703	1/20/2020 2:45:01 PM	55.6	38.7	0.6	5.1	132.1	-8.45	-48.04	94.83	Valve Adjustment:"NSPS/CAI,Closed valve 10% or less,Valve 50% open";Well Condition:"";Well Repairs:""
NILEW703	1/20/2020 2:46:23 PM	56.9	39.4	0.3	3.4	132.4	-5.41	-48.80	78.19	Valve Adjustment:"NSPS/CAI";Well Condition:"";Well Repairs:""
NILEW703	2/4/2020 3:57:31 PM	58.9	40.8	0.0	0.3	132.1	-4.36	-45.87	76.08	Valve Adjustment:"NSPS/CAI,Opened valve 10% or less,Valve 60% open";Well Condition:"";Well Repairs:""
NILEW703	2/4/2020 3:58:50 PM	58.7	41.3	0.0	0.0	131.7	-7.80	-46.04	96.06	Valve Adjustment:"NSPS/CAI";Well Condition:"";Well Repairs:""

Attachment C
BAAQMD Application Forms

Form Appendix H

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
375 Beale Street, Suite 600. . . San Francisco, CA 94105. . . (415) 749-4990. . . FAX (415) 749-5030
Website: www.baaqmd.gov

APPENDIX H

ENVIRONMENTAL INFORMATION FORM

(To Be Completed By Applicant)

Date Filed: 1/27/2020

General Information

1. Name and address of developer or project sponsor:
   International Disposal Corporation of California (IDCC)
2. Address of project: 1601 Dixon Landing Road, Milpitas, CA 95035

   Assessor's Block and Lot Number: APN 015-40-003, 015-40-005, and 015-47-001
3. Name, address, and telephone number of person to be contacted concerning this project:
   Rachelle Huber, 1601 Dixon Landing Road, Milpitas, CA, 95035, rhuber2@republicservices.com, (408) 586-2263
4. Indicate number of the permit application for the project to which this form pertains:
   To be determined
5. List and describe any other related permits and other public approvals required for this project, including those required by city, regional, state, and federal agencies:
   NA
6. Existing zoning district: PD Zoning
7. Proposed use of site (Project for which this form is filed):
   Higher operating value for temperature at four vertical landfill gas (LFG) extraction wells.

Project Description

8. Site size. The four vertical LFG extraction wells are connected to the GCCS.
9. Square footage. NA
10. Number of floors of construction. NA
11. Amount of off-street parking provided. NA
12. Attach plans. NA
13. Proposed scheduling. NA
14. Associated project. NA
15. Anticipated incremental development. NA

16. If residential, include the number of units, schedule of unit sizes, range of sale prices or rents, and type of household size expected. NA

17. If commercial, indicate the type, whether neighborhood, city or regionally oriented, square footage of sales area, and loading facilities. NA

18. If industrial, indicate type, estimated employment per shift, and loading facilities NA

19. If institutional, indicate the major function, estimated employment per shift, estimated occupancy, loading facilities, and community benefits to be derived from the project. NA

20. If the project involves a variance, conditional use or rezoning application, state this and indicate clearly why the application is required. NA

Are the following items applicable to the project or its effects? Discuss below all items checked yes. Attach additional sheets as necessary.

	Yes	No
21. Change in existing features of any bays, tidelands, beaches, or hills, or substantial alteration of ground contours.	☐	☒
22. Change in scenic views or vistas from existing residential areas or public lands or roads.	☐	☒
23. Change in pattern, scale or character of general area of project.	☐	☒
24. Significant amounts of solid waste or litter.	☐	☒
25. Change in dust, ash, smoke, fumes or odors in vicinity.	☐	☒
26. Change in ocean, bay, lake, stream or groundwater quality or quantity, or alteration of existing drainage patterns.	☐	☒
27. Substantial change in existing noise or vibration levels in the vicinity.	☐	☒
28. Site on filled land or on slope of 10 percent or more.	☐	☒
29. Use of disposal of potentially hazardous materials, such as toxic substances, flammables or explosives.	☐	☒
30. Substantial change in demand for municipal services (police, fire, water, sewage, etc.).	☐	☒
31. Substantially increase fossil fuel consumption (electricity, oil, natural gas, etc.).	☐	☒
32. Relationship to a larger project or series of projects.	☐	☒

Environmental Setting

33. Describe the project site as is exists before the project, including information on topography, soil stability, plants and animals, and any cultural, historical or scenic aspects. Describe any existing structures on the site, and the use of the structures. Attach photographs of the site. Snapshots or Polaroid photos will be accepted. The four vertical LFG extraction wells are installed and operated on the landfill footprint

34. Describe the surrounding properties, including information on plants and animals and any cultural, historical or scenic aspects. Indicate the type of land use (residential, commercial, etc.), intensity of land use (one-family, apartment houses, shops, department stores, etc.), and scale of development (height, frontage, set-back, rear yard, etc.). Attach photographs of the vicinity. Snapshots or Polaroid photos will be accepted. The landfill is situated at the terminus of Dixon Landing Road. To the south is the San Jose/Santa Clara Regional Wastewater Facility. To the west is the Bay. To the North are wetlands. To the east, approx 2,000 ft are industrial developments.

Certification

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this initial evaluation to the best of my ability, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

1/27/2020

Date

Signature

For INTERNATIONAL DISPOSAL CORP. OF CA

(Note: This is only a suggested form. Public agencies are free to devise their own format for initial studies.)

Engineering Division
Bay Area Air Quality Management District
375 Beale Street, Ste# 600, San Francisco, CA 94105
415-749-4990

Stationary Source Summary
Page 1

FACILITY NAME: Newby Island Sanitary Landfill and Recyclery | **FACILITY ID:** A9013

♦ DISTRICT USE ONLY ♦

Application #: _____ **Application Received:** _____

Application Filing Fee: _____ **Application Deemed Complete:** _____

I. FACILITY IDENTIFICATION

1. Facility Name: Newby Island Sanitary Landfill and Recyclery	
2. Four digit SIC: 4953	EPA Plant ID:
3. Parent Company (if different than Facility Name): International Disposal Corporation of California (IDCC)	
4. Mailing Address: 1601 Dixon Landing Road, Milpitas, CA 95035	
5. Street Address or Source Location: Same as above	
6. UTM C oordinates (if required): N/A	
7. Source Located within 50 miles of the state line: ☐ Yes ☒ No	
8. Source Located within 1000 feet of a school: ☐ Yes ☒ No	
9. Type of Orginzation: ☒ Corporation ☐ Sole Ownership ☐ Government ☐ Partnership ☐ Utility Company	
10. Legal Owner's Name: International Disposal Corporation of California	
11. Owner's Agent name (if any): N/A	
12. Responsible Official: Evan Boyd, General Manager	
13. Plant Site Manager/Contact: Rachelle Huber, Environmental Manager	Telephone #: (408) 586 - 2263
14. Type of Facility: Municipal Solid Waste Landfill	
15. General description of processes/products: Newby Island is an active solid waste disposal site with an active gas collection system. Flaring of landfill gas and decomposition of waste	
16. Is a Federal Risk Management Plan pursuant to Section 112(r) required? ☐ Yes ☒ No (If application is submitted after Risk Management Plan due date, attach verification that the plan is registered with the appropriate agency.)	

Engineering Division
Bay Area Air Quality Management District
375 Beale Street, Ste# 600, San Francisco, CA 94105
415-749-4990

Stationary Source Summary
Page 2

FACILITY NAME: Newby Island Sanitary Landfill and Recyclery	FACILITY ID: A9013

II. TYPE OF PERMIT ACTION

	CURRENT PERMIT (permit number)	EXPIRATION (date)
☐ Initial Title V Application		
☐ Permit Renewal		
☐ Significant Permit Modification		
☒ Minor Permit Modification	A9013	08/1/2020
☐ Administrative Amendment		

III. DESCRIPTION OF PERMIT ACTION

1. Does the permit action requested involve:
- ☐ Temporary Source
- ☐ Voluntary Emissions Caps
- ☐ Acid Rain Source
- ☐ Alternative Operating Scenarios
- ☐ CEM's
- ☐ Abatement Devices
- ☒ Source Subject to MACT Requirements [Section 112]
- ☐ Source Subject to Enhanced Monitoring

2. Is source operating under a Compliance Schedule? ☐ Yes ☒ No

3. For permit modification, provide a general description of the proposed permit modification: Newby Island Sanitary Landfill and Recyclery requests a change of permit conditions to allow for a higher operating value for temperature at four vertical landfill gas extraction wells.

Signature of Responsible Official

Evan Boyd
Print Name of Responsible Official

General Manager, Republic Services
Title of Responsible Official and Company Name

Date: 1/27/2020

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
939 Ellis Street, San Francisco, CA 94109
Engineering Division (415) 749-4990
www.baaqmd.gov fax (415) 749-5030

Form P-101B
Authority to Construct/
Permit to Operate

1. Application Information

BAAQMD Plant No. A9013 Company Name International Disposal Corporation of California, Inc.

Equipment/Project Description Temperature Higher Operating Value Request for Four Vertical Landfill Gas Extraction Wells

2. Plant Information

If you have not previously been assigned a Plant Number by the District or if you want to update any plant data that you have previously supplied to the District, please complete this section.

Equipment Location Newby Island Sanitary Landfill and Recyclery

City Milpitas Zip Code 95035

Mail Address 1601 Dixon Landing Road

City Milpitas State CA Zip Code 95035

Plant Contact Ms. Rachelle Huber Title Environmental Manager

Telephone (408) 586-2263 Fax (408) 270-8992 Email rhuber2@republicservices.com

NAICS (North American Industry Classification System) see www.census.gov/epcd/naics02/naico602.htm 562212

3. Proximity to a School (K-12)

The sources in this permit application (*check one*) ☐ Are ☒ Are not within 1,000 ft of the outer boundary of the nearest school.

4. Application Contact Information

All correspondence from the District regarding this application will be sent to the plant contact unless you wish to designate a different contact for this application.

Application Contact Rachelle Huber Title Environmental Manager

Mail Address 1601 Dixon Landing Road

City Milpitas State CA Zip Code 95035

Telephone (408) 586-2263 Fax (408) 270-8992 Email rhuber2@republicservices.com

5. Additional Information

The following additional information is required for all permit applications and should be included with your submittal. Failure to provide this information may delay the review of your application. Please indicate that each item has been addressed by checking the box. Contact the Engineering Division if you need assistance.

☐ If a new Plant, a local street map showing the location of your business

☒ A facility map, drawn roughly to scale, that locates the equipment and its emission points

☒ Completed data form(s) and a pollutant flow diagram for each piece of equipment. (See www.baaqmd.gov/pmt/forms/)

☒ Project/equipment description, manufacturer's data

☒ Discussion and/or calculations of the emissions of air pollutants from the equipment

6. Trade Secrets

Under the California Public Records Act, all information in your permit application will be considered a matter of public record and may be disclosed to a third party. If you wish to keep certain items separate as specified in Regulation 2, Rule 1, Section 202.7, please complete the following steps.

☐ Each page containing trade secret information must be labeled "trade secret" with the trade secret information clearly marked.

☐ A second copy, with trade secret information blanked out, marked "public copy" must be provided.

☐ For each item asserted to be trade secret, you must provide a statement which provides the basis for your claim.

7. Small Business Certification *You are entitled to a reduced permit fee if you qualify as a small business as defined in Regulation 3. In order to qualify, you must certify that your business meets all of the following criteria:*

☐ The business does not employ more than 10 persons and its gross annual income does not exceed $600,000.

☐ And the business is not an affiliate of a non-small business. (Note: a non-small business employs more than 10 persons and/or its gross income exceeds $600,000.)

8. Accelerated Permitting *The Accelerated Permitting Program entitles you to install and operate qualifying sources of air pollution and abatement equipment* ***without waiting for the District to issue a Permit to Operate****. To participate in this program you must certify that your project will meet all of the following criteria. Please acknowledge each item by checking each box.*

☐ Uncontrolled emissions of any single pollutant are each less than 10 lb/highest day, or the equipment has been precertified by the BAAQMD.

☐ Emissions of toxic compounds do not exceed the trigger levels identified in Table 2-5-1 (see Regulation 2, Rule 5).

☐ The project is not subject to public notice requirements (the source is either more than 1000 ft. from the nearest school, or the source does not emit any toxic compound in Table 2-5-1).

☐ For replacement of abatement equipment, the new equipment must have an equal or greater overall abatement efficiency for all pollutants than the equipment being replaced.

☐ For alterations of existing sources, for all pollutants the alteration does not result in an increase in emissions.

☐ Payment of applicable fees (the minimum permit fee to install and operate each source). See Regulation 3 or contact the Engineering Division for help in determining your fees.

9. CEQA *Please answer the following questions pertaining to CEQA (California Environmental Quality Act).*

A. Has another public agency prepared, required preparation of, or issued a notice regarding preparation of a California Environmental Quality Act (CEQA) document (initial study, negative declaration, environmental impact report, or other CEQA document) that analyzes impacts of this project or another project of which it is a part or to which it is related? ☒YES ☐NO If no, go to section 9B.

Describe the document or notice, preparer, and date of document or expected date of completion:

N/A

B. List and describe any other permits or agency approvals required for this project by city, regional, state or federal agencies:

N/A

C. List and describe all other prior or current projects for which either of the following statements is true: (1) the project that is the subject of this application could not be undertaken without the project listed below, (2) the project listed below could not be undertaken without the project that is the subject of this application:

N/A

10. Certification *I hereby certify that all information contained herein is true and correct. (Please sign and date this form)*

Rachelle Huber	EnvironmentalManager	Rachelle Huber	1/27/2020
Name of person certifying (print)	Title of person certifying	Signature of person certifying	Date

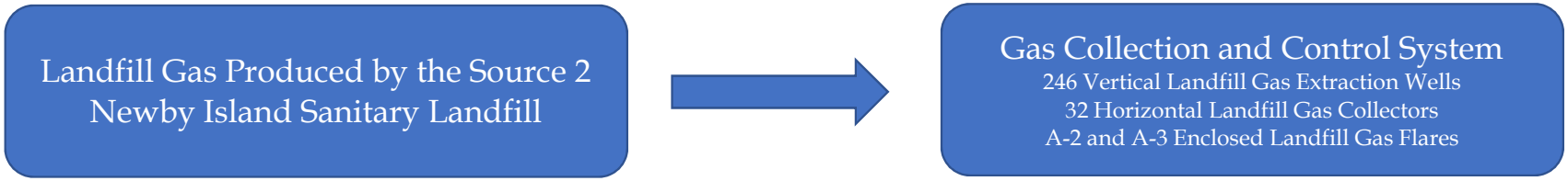
Send all application materials to the **BAAQMD Engineering Division, 939 Ellis Street, San Francisco, CA 94109.**

Attachment D
Pollutant Flow Diagram

Newby Island Sanitary Landfill and Recyclery

Change of Permit Conditions Request - Higher Operating Value for Temperature

Pollutant Flow Diagram



Attachment E
Site Map

REPUBLIC SERVICES

Newby Island Landfill 1601 Dixon Landing Road, Milpitas, CA 95035
o 408.262.1401 f 408.270.8992 republicservices.com

February 6, 2020

Ms. Roshni Brahmbhatt
Air Enforcement Section Manager
USEPA, Region IX
75 Hawthorne Street
San Francisco, CA 94105

Re: Temperature Higher Operating Value (HOV) Request for Four Landfill Gas Wells
Newby Island Sanitary Landfill and Recyclery, Milpitas, California
Plant Number A9013

Dear Ms. Brahmbhatt:

Tetra Tech, on behalf of the International Disposal Corporation of California, Inc. (IDCC), submits this application to the United States Environmental Protection Agency (USEPA), Region IX, to operate four vertical landfill gas (LFG) extraction wells at a temperature higher operating value (HOV) of 145 degrees Fahrenheit (°F) at the Newby Island Sanitary Landfill and Recyclery (Newby Island). Pursuant to New Source Performance Standards/Emissions Guidelines (NSPS/EG), it is required that wellhead temperature levels remain below 131°F. Moreover, pursuant to NSPS Subpart XXX Section 60.763, a HOV demonstration must be submitted to the Administrator for approval.

Newby Island is regulated under the NSPS, based upon a design capacity exceeding 2.5 million Megagrams (Mg) and 2.5 million cubic meters, and based upon a non-methane organic compounds (NMOC) emission rate calculation, which demonstrated an annual NMOC emission rate exceeding 34 Mg per year. Effective September 1, 2019, the gas collection and control system (GCCS) at Newby Island became subject to the monitoring and reporting requirements of NSPS Subpart XXX since it commenced construction, reconstruction, or modification after July 17, 2014. An update of Newby Island's GCCS Design Plan to include NSPS Subpart XXX requirements was submitted to the Bay Area Air Quality Management District (BAAQMD) and USEPA on March 6, 2018.

Per previous correspondence with the BAAQMD Permit Engineer assigned to Newby Island, the BAAQMD has not received delegation from the USEPA for NSPS Subpart XXX. Therefore, the BAAQMD cannot issue exemptions from the regulation for standards, monitoring, or reporting. Thus, IDCC requests an increase of the allowable wellhead temperature limit from 131°F to 145°F for the following four vertical LFG extraction wells:

Well ID
NILEW690
NILEW691
NILEW701
NILEW703

Background

The following discussion on the relationship between LFG production and temperatures will serve to justify this request for higher temperatures for these wells under NSPS XXX.

Decomposition of the waste occurs in four stages. During the first two stages, decomposition of the waste occurs aerobically. Aerobic decomposition is exothermic (i.e. heat is produced). The degree of the exothermic reaction is governed by the ambient air temperatures during waste placement, the amount of moisture present, the types of waste deposited, etc. The heat generated during the aerobic phases sets the stage for the types of anaerobic bacteria populations that flourish during later decomposition phases.

There are three types of anaerobic bacterial populations which produce LFG. Methane producing bacteria are called methanogens. The psychrophilic bacteria (organisms that are capable of growth in low temperatures) are found at temperatures below 59°F. This population produces the least amount of LFG and is not normally found in landfills in North America. Methanogens that generate LFG at temperatures below 110°F are known as mesophilic bacteria, while those that generate gas at temperatures in excess of 110°F are called thermophilic bacteria. The mesophilic bacteria predominate in most of the landfills in North America, with the exception of those found in the southernmost states. Therefore, it is not uncommon to find normal LFG temperatures in excess of 140°F to 160°F. It is also not uncommon to find pockets of thermophilic bacteria in any landfill, based on the conditions which existed during waste placement.

The vertical LFG extraction wells NILEW690, NILEW691, NILEW701, and NILEW703 have exhibited elevated readings on a consistent basis. However, the wells are viable and important to the GCCS at Newby Island to collect LFG produced by the Source-2 (S-2) landfill. As vacuum increases at the wells, temperature is projected to increase as well. Tetra Tech operations and maintenance (O&M) personnel have been tuning the wells to prevent prolonged temperature exceedances. As a result, the ability to pull vacuum on these wells has been limited due to the current temperature limit of 131°F. A new temperature limit of 145°F is being requested as it is believed that the wells will be able to operate at their full potential, allowing optimal LFG production and mitigating potential surface emissions. Based on previous attempts by O&M personnel to bring these wells back within allowable temperature parameters, it was concluded that without temperature being the limiting factor, the gas collection efficiency of these wells would greatly improve.

Additionally, carbon monoxide (CO) samples were taken at each well via Draeger tubes and results indicated extremely low levels of CO at each of the four wells (0 to 10 parts per million by volume [ppmv]), indicating that no SSO is occurring. CO concentrations of 500 ppmv or greater indicate likely SSOs, while concentrations between 100 and 499 ppmv would indicate concerns of SSOs. CO sample results are included in this application as Attachment A and in the table below.

Well ID	CO Sample (ppmv)
NILEW690	0
NILEW691	10
NILEW701	0
NILEW703	0

HOV Request

IDCC requests an HOV for temperature for the four vertical LFG extraction wells identified herein be increased from the standard 131°F to 145°F, as decommissioning these viable vertical LFG extraction wells due to elevated temperature readings above the NSPS limit of 131°F would be counterproductive. Additionally, IDCC requests the Newby Island Title V Permit Condition Number 10423 Part 6(d)(i) be altered to include Wells NILEW690, NILEW691, NILEW701, and NILEW703. Historical data for these four vertical LFG extraction wells is included in this application as Attachment B.

A Title V Permit Renewal Application was submitted to the BAAQMD on June 19, 2017. As IDCC is currently awaiting a renewed Title V Permit for Newby Island, including NSPS Subpart XXX requirements, this request is being submitted to obtain approval for an HOV of 145°F to allow LFG extraction wells NILEW690, NILEW691, NILEW701, and NILEW703 to continue operation, while remaining in compliance with permitted limits. In addition, a temperature HOV request for the aforementioned wells to be approved under NSPS Subpart WWW and BAAQMD Regulation 8-34 was also submitted to the BAAQMD.

If you have any questions or require additional information, please do not hesitate to contact Rachelle Huber at (408) 586-2263 or by email at rhuber2@republicservices.com or Meghan Caesar at (925) 241-1074 or by email at meghan.caesar@tetratech.com.

Sincerely,

Rachelle Huber
Environmental Manager
Newby Island Landfill

Attachments: Attachment A – CO Sample Results
Attachment B – Historical Wellfield Data
Attachment C - Site Map

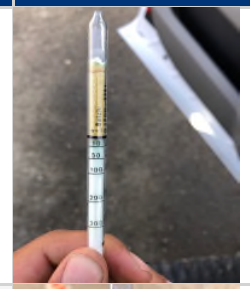
cc: Anthony Boccaleoni, IDCC
Rachelle Huber, IDCC
Jennifer Baker, BEL-Engineering
Meghan Caesar, Tetra Tech
Maria Bowen, Tetra Tech
Tamiko Endow, BAAQMD
Mark Sims, USEPA Region IX

Attachment A
CO Sample Results

TETRA TECH

Draeger Tubes

Newby Island

Point ID	Date	Chemical Tested For	Approximate Concentration	Concentration Units	Draeger Notes	Technician	Image
NILEW701	11/7/2019 3:58:58 PM	CO	0	ppm		Mike Yes	
NILEW690	11/7/2019 3:46:09 PM	CO	0	ppm		Mike Yes	
NILEW703	11/7/2019 3:50:10 PM	CO	0	ppm		Mike Yes	
NILEW691	12/17/2019 5:23:30 PM	CO	10	ppm		Jorge Contreras	

Attachment B
Historical Wellfield Data

HOV HISTORICAL WELLFIELD DATA

as of February 6, 2020

Point ID	Record Date	CH4 [%]	CO2 [%]	O2 [%]	Bal Gas [%]	Init Temp [°F]	Init Static Press ["H2O]	Sys Pressure ["H2O]	Init Flow [scfm]	Comments
NILEW690	11/4/2019 2:18:50 PM	57.4	42.6	0.0	0.0	121.0	54.10	-42.57	2.31	Valve Adjustment:"";Well Comment:"First reading on new well";Well Condition:"";Well Repairs:""
NILEW690	11/4/2019 2:30:32 PM	57.4	42.6	0.0	0.0	115.0	57.81	-43.67	1.58	Valve Adjustment:"Opened valve >10%,Valve 15% open";Well Condition:"";Well Repairs:""
NILEW690	11/4/2019 2:32:06 PM	57.2	42.8	0.0	0.0	130.0	28.34	-43.67	18.68	Valve Adjustment:"No change,Valve 15% open";Well Condition:"";Well Repairs:""
NILEW690	11/4/2019 4:46:32 PM	57.3	42.7	0.0	0.0	139.0	25.38	-44.30	18.01	Valve Adjustment:"Opened valve >10%,Valve 30% open";Well Condition:"";Well Repairs:""
NILEW690	11/4/2019 4:50:23 PM	57.0	43.0	0.0	0.0	139.0	12.20	-42.57	21.27	Valve Adjustment:"NSPS/CAI,No change,Valve 30% open";Well Condition:"";Well Repairs:""
NILEW690	11/5/2019 4:42:35 PM	58.1	41.9	0.0	0.0	139.0	8.19	-39.59	22.54	Valve Adjustment:"NSPS/CAI,Opened valve 10% or less,Valve 30% open";Well Condition:"";Well Repairs:""
NILEW690	11/5/2019 4:44:09 PM	58.4	41.6	0.0	0.0	139.0	-1.19	-39.88	26.31	Valve Adjustment:"NSPS/CAI,No change,Valve 30% open";Well Condition:"";Well Repairs:""
NILEW690	11/19/2019 3:39:41 PM	59.4	39.8	0.0	0.8	136.0	8.57	-34.24	27.03	Valve Adjustment:"NSPS/CAI,Opened valve 10% or less,Valve 40% open";Well Condition:"";Well Repairs:""
NILEW690	11/19/2019 3:41:02 PM	59.3	39.8	0.0	0.9	137.0	-1.57	-34.96	32.90	Valve Adjustment:"NSPS/CAI,No change,Valve 40% open";Well Condition:"";Well Repairs:""
NILEW690	12/2/2019 3:16:43 PM	58.3	39.4	0.0	2.3	132.3	-7.09	-42.49	26.65	Valve Adjustment:"NSPS/CAI,Opened valve 10% or less,Valve 50% open";Well Condition:"";Well Repairs:""
NILEW690	12/2/2019 3:18:09 PM	58.6	39.7	0.0	1.7	132.4	-15.88	-40.98	30.25	Valve Adjustment:"NSPS/CAI,No change,Valve 50% open";Well Condition:"";Well Repairs:""
NILEW690	12/16/2019 3:28:42 PM	57.1	40.3	0.0	2.6	133.8	-19.68	-40.05	28.56	Valve Adjustment:"NSPS/CAI,Opened valve 10% or less,Valve 60% open";Well Condition:"";Well Repairs:""
NILEW690	12/16/2019 3:30:24 PM	57.9	40.3	0.0	1.8	133.7	-22.51	-40.81	29.47	Valve Adjustment:"NSPS/CAI,No change,Valve 60% open";Well Condition:"";Well Repairs:""
NILEW690	1/6/2020 10:21:41 AM	58.5	39.3	0.0	2.2	135.1	-23.99	-40.34	27.56	Valve Adjustment:"NSPS/CAI,Opened valve 10% or less,Valve 70% open";Well Condition:"";Well Repairs:""
NILEW690	1/6/2020 10:22:51 AM	58.7	39.4	0.0	1.9	135.1	-23.99	-38.28	26.42	Valve Adjustment:"NSPS/CAI";Well Condition:"";Well Repairs:""
NILEW690	1/21/2020 1:30:44 PM	53.9	36.3	1.9	7.9	134.8	-23.31	-37.90	27.75	Valve Adjustment:"NSPS/CAI,Closed valve 10% or less,Valve 70% open";Well Condition:"";Well Repairs:""
NILEW690	1/21/2020 1:32:17 PM	54.0	35.9	1.9	8.2	134.6	-22.97	-39.00	29.79	Valve Adjustment:"NSPS/CAI";Well Condition:"";Well Repairs:""
NILEW690	2/4/2020 3:46:55 PM	59.5	39.8	0.1	0.6	134.6	-19.73	-35.36	28.98	Valve Adjustment:"Opened valve 10% or less,Valve 80% open";Well Condition:"";Well Repairs:""
NILEW690	2/4/2020 3:48:17 PM	59.5	39.9	0.1	0.5	134.4	-19.82	-34.06	27.88	Valve Adjustment:"No change,Valve 80% open";Well Condition:"";Well Repairs:""
NILEW691	10/30/2019 11:19:08 AM	59.9	40.1	0.0	0.0	93.0	5.46	-16.50	0.22	Valve Adjustment:"No change,Valve at minimum position";Well Comment:"first reading on new well ";Well Condition:"";Well Repairs:""
NILEW691	10/30/2019 11:32:10 AM	59.8	40.2	0.0	0.0	93.0	5.46	-17.13	0.27	Valve Adjustment:"Opened valve >10%,Valve 40% open";Well Condition:"";Well Repairs:""
NILEW691	10/30/2019 11:35:43 AM	60.0	40.0	0.0	0.0	112.0	2.74	-15.86	10.40	Valve Adjustment:"No change,Valve 40% open";Well Condition:"";Well Repairs:""
NILEW691	10/30/2019 1:20:24 PM	59.7	40.3	0.0	0.0	120.0	2.50	-15.48	4.02	Valve Adjustment:"Opened valve >10%,Valve 40% open";Well Condition:"";Well Repairs:""
NILEW691	10/30/2019 1:23:28 PM	59.6	40.4	0.0	0.0	120.0	1.26	-14.42	7.87	Valve Adjustment:"No change,Valve 40% open";Well Condition:"";Well Repairs:""
NILEW691	10/31/2019 11:27:07 AM	59.5	40.5	0.0	0.0	110.0	0.40	-20.27	3.25	Valve Adjustment:"Opened valve 10% or less,Valve 35% open";Well Condition:"";Well Repairs:""
NILEW691	10/31/2019 11:29:24 AM	60.0	40.0	0.0	0.0	110.0	-0.37	-20.36	6.64	Valve Adjustment:"No change,Valve 35% open";Well Condition:"";Well Repairs:""
NILEW691	11/8/2019 3:19:27 PM	61.6	38.4	0.0	0.0	112.0	-0.57	-28.37	31.01	Valve Adjustment:"Opened valve 10% or less,Valve 45% open";Well Condition:"";Well Repairs:""
NILEW691	11/22/2019 2:32:14 PM	59.8	38.4	0.5	1.3	108.0	-4.92	-30.11	49.16	Valve Adjustment:"Opened valve 10% or less,Valve 50% open";Well Condition:"";Well Repairs:""
NILEW691	11/22/2019 2:34:26 PM	59.8	39.0	0.4	0.8	108.0	-7.64	-32.27	64.14	Valve Adjustment:"No change,Valve 50% open";Well Condition:"";Well Repairs:""
NILEW691	12/10/2019 11:55:02 AM	57.0	39.3	0.0	3.7	130.8	-8.78	-28.02	53.69	Valve Adjustment:"NSPS/CAI,Opened valve 10% or less,Valve 60% open";Well Condition:"";Well Repairs:""
NILEW691	12/10/2019 11:57:32 AM	57.2	39.5	0.0	3.3	131.2	-11.61	-25.96	67.05	Valve Adjustment:"NSPS/CAI,No change,Valve 60% open";Well Condition:"";Well Repairs:""
NILEW691	12/12/2019 2:38:06 PM	59.2	40.8	0.0	0.0	133.0	-12.97	-27.48	64.17	Valve Adjustment:"NSPS/CAI,No change,Valve 60% open";Well Condition:"";Well Repairs:""
NILEW691	12/23/2019 2:35:53 PM	60.8	39.1	0.1	0.0	132.6	-15.53	-32.78	72.07	Valve Adjustment:"NSPS/CAI,Opened valve 10% or less,Valve 70% open";Well Condition:"";Well Repairs:""
NILEW691	12/23/2019 2:38:24 PM	59.9	39.7	0.1	0.3	132.8	-16.38	-32.87	78.76	Valve Adjustment:"NSPS/CAI,No change,Valve 70% open";Well Condition:"";Well Repairs:""
NILEW691	1/9/2020 11:56:41 AM	57.2	39.1	0.1	3.6	132.1	-17.65	-34.12	77.91	Valve Adjustment:"NSPS/CAI,Closed valve 10% or less,Valve 60% open";Well Condition:"";Well Repairs:""
NILEW691	1/9/2020 11:57:52 AM	57.3	39.2	0.0	3.5	132.1	-16.55	-33.02	71.92	Valve Adjustment:"NSPS/CAI";Well Condition:"";Well Repairs:""
NILEW691	1/23/2020 2:53:44 PM	61	38.9	0	0.1	130.3	-13.48	-29.05	70.09	Valve Adjustment:"Opened valve 10% or less,Valve 70% open";Well Condition:"";Well Repairs:""
NILEW691	1/23/2020 2:55:37 PM	58.1	36.7	0	5.2	130.3	-14.51	-28.8	76.93	Valve Adjustment:"No change,Valve 70% open";Well Condition:"";Well Repairs:""
NILEW691	1/29/2020 2:38:09 PM	54.6	37.2	0.2	8	132.3	-13.79	-28.19	77.61	Valve Adjustment:"NSPS/CAI,Opened valve 10% or less,Valve 80% open";Well Condition:"";Well Repairs:""
NILEW691	1/29/2020 2:39:35 PM	58.2	38	0.1	3.7	132.4	-14.52	-25.93	81.46	Valve Adjustment:"NSPS/CAI";Well Condition:"";Well Repairs:""
NILEW701	10/25/2019 3:04:16 PM	45.4	31.8	4.5	18.3	101.0	1.21	-17.96	16.32	Valve Adjustment:"No change,Valve at minimum position";Well Comment:"First reading on new well";Well Condition:"";Well Repairs:""
NILEW701	10/25/2019 3:07:37 PM	45.7	32.1	4.3	17.9	101.0	1.26	-19.02	18.28	Valve Adjustment:"Valve at minimum position,Opened valve 10% or less";Well Condition:"";Well Repairs:""
NILEW701	10/25/2019 3:12:16 PM	58.0	42.0	0.0	0.0	116.0	-0.35	-16.58	9.84	Valve Adjustment:"No change,Valve at minimum position";Well Condition:"";Well Repairs:""
NILEW701	10/25/2019 4:28:56 PM	58.1	41.9	0.0	0.0	115.0	-1.29	-17.29	9.66	Valve Adjustment:"Opened valve 10% or less,Valve 5% open";Well Condition:"";Well Repairs:""
NILEW701	11/5/2019 10:21:34 AM	52.1	40.8	0.0	7.1	136.0	-8.49	-16.41	17.79	Valve Adjustment:"NSPS/CAI,No change,Valve 5% open";Well Condition:"";Well Repairs:""
NILEW701	11/5/2019 10:22:57 AM	52.0	40.9	0.0	7.1	136.0	-8.49	-17.75	24.82	Valve Adjustment:"NSPS/CAI,No change,Valve 5% open";Well Condition:"";Well Repairs:""
NILEW701	11/19/2019 3:17:39 PM	57.3	41.7	0.0	1.0	132.0	2.30	-34.79	9.50	Valve Adjustment:"NSPS/CAI,Opened valve >10%,Valve 20% open";Well Condition:"";Well Repairs:""
NILEW701	11/19/2019 3:19:38 PM	57.6	41.4	0.0	1.0	136.0	-1.92	-34.67	18.35	Valve Adjustment:"NSPS/CAI,No change,Valve 20% open";Well Condition:"";Well Repairs:""
NILEW701	12/2/2019 2:54:21 PM	57.0	40.4	0.0	2.6	141.2	-9.97	-43.00	17.48	Valve Adjustment:"NSPS/CAI,Valve 20% open";Well Condition:"";Well Repairs:""
NILEW701	12/2/2019 2:55:44 PM	57.1	40.2	0.0	2.7	141.2	-10.22	-42.87	17.75	Valve Adjustment:"NSPS/CAI,No change,Valve 20% open";Well Condition:"";Well Repairs:""
NILEW701	12/16/2019 3:12:01 PM	57.6	40.8	0.0	1.6	141.6	-8.87	-41.61	17.59	Valve Adjustment:"NSPS/CAI,Opened valve 10% or less,Valve 25% open";Well Condition:"";Well Repairs:""
NILEW701	12/16/2019 3:13:18 PM	58.1	40.5	0.0	1.4	141.9	-11.02	-40.89	19.43	Valve Adjustment:"NSPS/CAI,No change,Valve 25% open";Well Condition:"";Well Repairs:""

HOV HISTORICAL WELLFIELD DATA

as of February 6, 2020

NILEW701	1/6/2020 10:01:46 AM	57.2	39.3	0.0	3.5	146.3	-11.82	-37.11	15.81	Valve Adjustment:"NSPS/CAI,Closed valve 10% or less,Valve 15% open";Well Condition:"";Well Repairs:""
NILEW701	1/6/2020 10:03:03 AM	58.4	39.5	0.0	2.1	144.9	-8.11	-36.68	10.56	Valve Adjustment:"NSPS/CAI";Well Condition:"";Well Repairs:""
NILEW701	1/21/2020 12:08:01 PM	54.9	37.7	1.0	6.4	144.5	-10.39	-35.84	18.94	Valve Adjustment:"NSPS/CAI,Closed valve 10% or less,Valve 20% open";Well Condition:"";Well Repairs:""
NILEW701	1/21/2020 12:09:20 PM	55.3	37.9	0.9	5.9	144.0	-8.70	-35.38	16.63	Valve Adjustment:"NSPS/CAI";Well Condition:"";Well Repairs:""
NILEW701	2/4/2020 4:03:42 PM	59.2	40.8	0	0	144.3	-7.45	-34.94	17.68	Valve Adjustment:"NSPS/CAI,Closed valve 10% or less,Valve 10% open";Well Condition:"";Well Repairs:""
NILEW701	2/4/2020 4:05:33 PM	58.9	41.1	0	0	143.2	-3.27	-34.56	11.92	Valve Adjustment:"NSPS/CAI";Well Condition:"";Well Repairs:""
NILEW703	10/25/2019 12:56:03 PM	56.9	40.7	0.0	2.4	131.3	14.74	-15.73	6.21	Valve Adjustment:"No change,Valve at minimum position";Well Comment:"First reading on new well";Well Condition:"";Well Repairs:""
NILEW703	10/25/2019 1:09:19 PM	56.9	40.5	0.0	2.6	131.3	14.82	-16.91	6.63	Valve Adjustment:"NSPS/CAI,Opened valve >10%,Valve 60% open";Well Condition:"";Well Repairs:""
NILEW703	10/25/2019 1:11:27 PM	56.6	40.8	0.0	2.6	135.0	-0.12	-27.89	35.11	Valve Adjustment:"No change,Valve 60% open";Well Condition:"";Well Repairs:""
NILEW703	10/25/2019 4:11:36 PM	58.3	41.7	0.0	0.0	135.2	-2.86	-22.09	73.44	Valve Adjustment:"Opened valve 10% or less,Valve 70% open";Well Condition:"";Well Repairs:""
NILEW703	11/5/2019 10:04:16 AM	57.0	42.2	0.0	0.8	135.0	-4.58	-18.89	70.95	Valve Adjustment:"NSPS/CAI,Opened valve 10% or less,Valve 75% open";Well Condition:"";Well Repairs:""
NILEW703	11/5/2019 10:06:11 AM	57.1	42.7	0.0	0.2	135.0	-4.39	-18.30	74.17	Valve Adjustment:"NSPS/CAI,Opened valve 10% or less,Valve 80% open";Well Condition:"";Well Repairs:""
NILEW703	11/19/2019 3:27:54 PM	57.9	41.0	0.0	1.1	118.0	14.95	-37.95	3.03	Valve Adjustment:"NSPS/CAI,Opened valve >10%,Valve 60% open";Well Condition:"";Well Repairs:""
NILEW703	11/19/2019 3:29:14 PM	58.0	41.0	0.0	1.0	133.0	-1.92	-47.41	105.72	Valve Adjustment:"NSPS/CAI,No change,Valve 60% open";Well Condition:"";Well Repairs:""
NILEW703	12/2/2019 3:01:22 PM	54.2	39.4	0.0	6.4	130.0	-12.50	-54.14	101.22	Valve Adjustment:"No change,Valve 60% open";Well Condition:"";Well Repairs:""
NILEW703	12/16/2019 3:18:58 PM	54.5	39.6	0.0	5.9	129.7	-11.36	-52.59	103.38	Valve Adjustment:"No change,Valve 60% open";Well Condition:"";Well Repairs:""
NILEW703	1/6/2020 10:10:02 AM	53.8	38.5	0.0	7.7	131.9	-9.46	-44.51	93.28	Valve Adjustment:"NSPS/CAI,Closed valve 10% or less,Valve 50% open";Well Condition:"";Well Repairs:""
NILEW703	1/6/2020 10:11:16 AM	53.5	38.2	0.0	8.3	132.3	-6.80	-46.66	74.42	Valve Adjustment:"NSPS/CAI";Well Condition:"";Well Repairs:""
NILEW703	1/20/2020 2:45:01 PM	55.6	38.7	0.6	5.1	132.1	-8.45	-48.04	94.83	Valve Adjustment:"NSPS/CAI,Closed valve 10% or less,Valve 50% open";Well Condition:"";Well Repairs:""
NILEW703	1/20/2020 2:46:23 PM	56.9	39.4	0.3	3.4	132.4	-5.41	-48.80	78.19	Valve Adjustment:"NSPS/CAI";Well Condition:"";Well Repairs:""
NILEW703	2/4/2020 3:57:31 PM	58.9	40.8	0.0	0.3	132.1	-4.36	-45.87	76.08	Valve Adjustment:"NSPS/CAI,Opened valve 10% or less,Valve 60% open";Well Condition:"";Well Repairs:""
NILEW703	2/4/2020 3:58:50 PM	58.7	41.3	0.0	0.0	131.7	-7.80	-46.04	96.06	Valve Adjustment:"NSPS/CAI";Well Condition:"";Well Repairs:""

Attachment C
Site Map

REPUBLIC SERVICES

Newby Island Landfill 1601 Dixon Landing Road, Milpitas, CA 95035
o 408.262.1401 f 408.270.8992 republicservices.com

February 10, 2020

Ms. Tamiko Endow
Senior Air Quality Engineer
Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, CA 94105

Re: Response to BAAQMD Request for Additional Information
Colorizing Operation Permit to Operate Application
Newby Island Sanitary Landfill and Recyclery, Milpitas, California
Plant Number A9013

Dear Ms. Endow:

International Disposal Corporation of California, Inc. (IDCC), the owner/operator of the Newby Island Sanitary Landfill and Recyclery (Newby Island) (Facility Number A9013), submits this response letter to the Bay Area Air Quality Management District (BAAQMD) Request for Additional Information dated December 9, 2019. This Request for Additional Information was received in response to the recent Permit Application Request for Additional Information Response submitted on November 15, 2019. On January 18, 2018, an initial application for a Permit to Operate (PTO) for one engine to power the colorizer was submitted to the BAAQMD. The November 15, 2019 submittal included additional information regarding the hopper and conveyor units, as well as stockpiles, associated with the colorizing operation.

The BAAQMD requests are in italics below, followed by IDCC's responses.

Source Descriptions Confirmation and Clarification:

S-1049 Portable Diesel Engine to power Colorizing operation, Tier 4 final CARB certified, 268 bhp maximum; operating a maximum of 8 hours per day and 2,496 hours per year

S-1049 operates a maximum of 8 hours per day, 6 days per week, and 52 weeks per year; which equates to and 2,496 hours per year.

S-1050 Colorizing Hopper, Colorbiotics Second Harvester 200, 30 tons/hour capacity, processing a maximum of 7,200 tons ground wood per year (36,000 cubic yards); abated by Water Spray

S-1050 processes 30 tons/hour, 8 hours per day, 6 days per week, and 52 weeks per year; which equates to 74,880 tons of ground wood per year.

S-1051 Portable Conveyor, Superior Industries Portable Radial Staking Conveyor, 36"x50", 1,200 tons/hour capacity, processing a maximum of 7,200 tons ground wood per year

S-1051 due to S-1050; processes 30 tons/hour, 8 hours per day, 6 days per week, and 52 weeks per year; which equates to 74,880 tons of ground wood per year.

S-1052 Colorized Wood Stockpiles, maximum throughput 7,200 tons per year, max

S-1052 maximum throughput 74,880 tons per year due to S-1050 maximum process capacity (30 tons/hour, 8 hours per day, 6 days per week, and 52 weeks per year).

1. *Process Description: Please review the source descriptions and operating limits and confirm they are correct.*
   a. *Since the engine will be rented, please confirm that any engine rented will meet the Tier 4 emissions limits, will not exceed a horsepower rating of 268 hp and the certified CO emissions.*

      IDCC does not currently anticipate a larger engine will be rented. The rental unit will meet the Tier 4 requirements, will be rated under 268 horsepower (hp), and the carbon monoxide (CO) emissions will remain within the previously provided certification.

   b. *S-1008: Please confirm that the current permit conditions for S-1008 will not need to be modified.*

      S-1008 is the tub grinder which is used at the CASP to grind the organic feedstock. To correct the process description previously provided, the colorizing operation grinds and sells clean construction demolition wood brought into Newby Island under S-10 using the S-1008 tub grinder. Since the feedstocks are for separate sources, no modifications of the S-1008 permit limits are needed.

   c. *Colorizing Hopper: The equipment description specifies multi-stage mixing of colorant with feedstock. Does this occur within an enclosed chamber? Where are the water spray nozzles located?*

      IDCC has confirmed the multi-stage mixing of the colorant does occur in an enclosed chamber. The water spray nozzles are located in an interior box of the enclosed chamber.

   d. *Conveyor: Is the conveyor equipped with water spray? Is the moisture content of the material transported on the conveyor known?*

      The conveyor is equipped with water spray. Estimations of the moisture content of the material based on throughput are included in Attachment B.

2. *Location*
   a. *Please identify if the colorizing operation might be operated anywhere within the landfill boundary.*

      The colorizing operation is stationary to the site and is currently located on the Northwest portion in the Subtitle D lined section of the landfill. There are currently no plans to move the equipment location. In the event the colorizing operation does need to be moved, due to operational changes or other unforeseen circumstances, a Change of Permit Conditions (COPC)

application can be submitted to the BAAQMD noting changes. Please refer to Attachment C, Colorizing Operation Location Map, for further detail.

b. *Please provide the calculations of emissions for fugitive road dust for transfer of ground lumber from S-10 location to the colorizing process, for the transfer of colorized wood from the colorizing operation to the storage bunkers, and for travel of customer vehicles to pick up the finished product and remove it from the site.*

Please refer to Attachment D, Fugitive Dust Emissions Calculations, for further detail. The calculations are currently based on the maximum distance and trips taken on paved and unpaved roads.

3. Fees
   a. *The fees for this application have been updated to include these sources and to reflect the current Regulation 3 fees. The balance due for this application is* ***$14,765.00****.*

   IDCC will submit payment for the applicable fees via the BAAQMD online processing portal.

Should you have any questions or comments regarding this submittal or require further information, please contact Rachelle Huber at 408-586-2263 or rhuber2@republicservices.com or Meghan Caesar at (925) 241-1074 or meghan.caesar@tetratech.com.

Sincerely,

Rachelle Huber

Rachelle Huber
Environmental Manager
Newby Island Landfill

Attachments: Attachment A – BAAQMD Request for Additional Information
Attachment B – Moisture Content Calculations
Attachment C – Colorizing Operation Location Map
Attachment D – Fugitive Dust Emissions Calculations

cc: Suzan Pankenier, Tetra Tech
Meghan Caesar, Tetra Tech

Attachment A
BAAQMD Request for Additional Information

BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

December 9, 2019

International Disposal Corporation
1601 Dixon Landing Road
Milpitas, CA 95035
Attention: Rachelle Huber

Application Number	29503
Plant Number:	9013
Equipment Location:	same as above

Dear Ms. Huber:

SUBJECT: COLORIZING OPERATION – PORTABLE DIESEL ENGINE, HOPPER, CONVEYOR, STOCKPILES

The District received your response dated November 15, 2019 for the equipment described below:

S-1049 Portable Diesel Engine to power Colorizing Operation, Tier 4 final CARB certified, 268 bhp maximum; operating a maximum of 8 hours per day and 2,496 hours per year
S-1050 Colorizing Hopper, Colorbiotics Second Harvester 200, 30 tons/hour capacity, processing a maximum of 7,200 tons ground wood per year (36,000 cubic yards); abated by Water Spray
S-1051 Portable Conveyor, Superior Industries Portable Radial Stacking Conveyor, 36"x50', 1200 tons/hour capacity, processing a maximum of 7,200 tons ground wood per year
S-1052 Colorized Wood Stockpiles, maximum throughput 7,200 tons per year, max

1. **Process description**: Please review the above source descriptions and operating limits and confirm if they are correct.
   - Since the engine will be rented, please confirm that every engine rented for this operation will meet the Tier 4 final emission limits, will not exceed a maximum horsepower rating of 268 bhp, and please confirm the certified CO emissions; the certification provided for the 268 bhp engine listed CO emissions of 0.0. If a larger engine might be rented, please identify the maximum engine size and emissions.
   - S-1008, Portable Tub Grinder was identified as the source which grinds the lumber feedstock for colorizing. The permit conditions for S-1008 allow processing of 1,280 tons per day and 199,680 tons per year of material. If those limits are adequate for processing of both the compost feedstock, as well as the feedstock for this colorizing operation, no modification of the permit for S-1008 is necessary. Please confirm. If the permit conditions for S-1008 must be increased to allow for the colorizing lumber feedstock, please identify the revised daily and annual throughput limits for S-1008.
   - Colorizing Hopper: The equipment description specifies multi-stage mixing of colorant with the feedstock. Does this occur within an enclosed chamber? Where are the water spray nozzles located?

BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT

- Conveyor: Is the conveyor equipped with water spray? Is the moisture content of the material transported on the conveyor known?

2. **Location**:
   - Please identify if the colorizing operation might be operated anywhere within the landfill boundary. This is relevant for placement of the emissions in the Health Risk Analysis and also for transport distances.
   - Emissions for fugitive road dust for transfer of materials were provided in your letter, but the calculations were missing. Please provide the calculations of emissions for fugitive road dust for transfer of ground lumber from S-1008 location to the colorizing process, for transfer of colorized wood from the colorizing operation to the storage bunkers, and for travel of customer vehicles to pick up the finished product and remove from the site. Please identify these locations and potential locations on a site map. The calculations should be based on the maximum distance that could be travelled, whether the roads are paved or unpaved, and maximum number of vehicle trips.

3. **Fees**: As explained in my previous letter, hoppers, conveyors, and stockpiles are sources which require District permits, unless they qualify for permit exemption. Since no permit exemptions were identified as applying to these sources, the sources have been added to the application. The fees for this application have been updated to include these sources and to reflect the current Regulation 3 fees. The balance due for this application is **$14,765.00**. A detailed listing and invoice are attached.

Please return the requested information and fees above. Include your application number with any correspondence with the District. If you have any questions, please call me at **(415) 749-4939** or contact me through email at **tendow@baaqmd.gov**.

Very truly yours,

Tamiko Endow

Tamiko Endow
Senior Air Quality Engineer

Attachment B
Moisture Content Calculations

Moisture Calculations

Hopper Throughput

100	cy/hr	*Site estimate*
20	tons/hr	*Site estimate*

Density of Water

1	g/ml	*Standard*
8.34540445	lbm/gal	*Conversion*

Density of Grindings

0.2	tons/cy	*calculated from throughput*
400	lbm/cy	*Conversion*
243	lbm/cy	*per EPA 4/2016, Volume-to-Weight Conversion Factors*

Percent by Weight: = Mass of water/(mass of water + mass of grindings)

	Grindings (cy)	Water (gal)	Grindings Weight - Throughput (lbm)	Grinding Weight - EPA (lbm)	Water Weight (lbm)	Moisture Percent by Mass - Throughput (%)	Moisture Percent by Mass - EPA (%)
Mahogany	1000	600	400,000.00	243,000.00	5,007.24	1.2%	2.0%
Brown	1000	600	400,000.00	243,000.00	5,007.24	1.2%	2.0%
Black	1000	1200	400,000.00	243,000.00	10,014.49	2.4%	4.0%

Attachment C
Colorizing Operation Location Map

Attachment D
Fugitive Dust Emissions Calculations

S1008 to Colorizer

Site Specific Information

Paved Road Length (1)	0.0	mi
Unpaved Road Length (1)	0.9	mi
No. of Hours of Operation Per Day (2)	8.0	hr/day
No. of Days in Averaging Period, N (2)	312	day/yr
No. of Hours of Operation Per Averaging Period	2,496	hr/yr
No. of "Wet" Days (i.e., at least 0.01 in. precip), P (3)	60	day/yr
Silt Loading, sL (3)	7.40	g/m^2
Surface Material Silt Content, s (3)	6.0	%
Control Efficiency, CE (2)	50%	

Calculation of Mean Vehicle Weight

Vehicle Type	Vehicle Weight[1] Unloaded (ton)	Vehicle Weight[1] Loaded (ton)	Average (ton)	Vehicles Per Day[6]
Transfer Trailer	17	37	27	1
Front Loader	20	26	23	0
Rear Loader	20	34	27	0
Roll Off	16	20	18	0
Dump Truck	14	40	27	0
Residential	5	1	3	0

Total Vehicle Count	1	day^{-1}
Mean Vehicle Weight, W	27.00	ton

Paved Road Emissions

Predictive Emission Factor Equation (3) ... $E = \{[k*(sL)^{0.91}*(W)^{1.02}]*(1-P/4N)\}*CE$

Particle Size Multiplier - PM10, k	2.20E-03	
Calculated Emission Factor - PM10, E	0.37	lb/VMT
Total Miles Travelled - Paved Roads (1)	0	VMT/yr
Calculated Emissions - PM10	0.00 tpy	0.00 lb/hr

Unpaved Road Emissions

Predictive Emission Factor Equation (4) ... $[k*(s/12)^{a}*(W/3)^{b}]*[(365-P)/365)$

Particle Size Multiplier - PM10, k	1.50	
Calculated Emission Factor - PM10, E	1.81	lb/VMT
Total Miles Travelled - Unpaved Roads (1)	587	VMT/yr
Calculated Emissions - PM10	0.26 tpy	0.21 lb/hr

[1] Source: Newby Island Sanitary Landfill and Recyclery, 2019

[2] Assumed

[3] EPA, "Emissions Factors & AP 42, Compilation of Air Pollutant Emission Factors," Section 13.2.1, Jan. 2011.

[4] EPA, "Emissions Factors & AP 42, Compilation of Air Pollutant Emission Factors," Section 13.2.2, Nov. 2006.

[5] Assumed

[6] Conservative estimate based on actual site data

Colorizer to Storage Bunkers

Site Specific Information

Paved Road Length (1)	0.5	mi
Unpaved Road Length (1)	0.5	mi
No. of Hours of Operation Per Day (2)	8.0	hr/day
No. of Days in Averaging Period, N (2)	312	day/yr
No. of Hours of Operation Per Averaging Period	2,496	hr/yr
No. of "Wet" Days (i.e., at least 0.01 in. precip), P (3)	60	day/yr
Silt Loading, sL (3)	7.40	g/m^2
Surface Material Silt Content, s (3)	6.0	%
Control Efficiency, CE (2)	50%	

Calculation of Mean Vehicle Weight

Vehicle Type	Vehicle Weight[1] Unloaded (ton)	Loaded (ton)	Average (ton)	Vehicles Per Day[6]
Transfer Trailer	17	37	27	2
Front Loader	20	26	23	0
Rear Loader	20	34	27	0
Roll Off	16	20	18	0
Dump Truck	14	40	27	0
Residential	5	1	3	0

Total Vehicle Count	2	day^{-1}
Mean Vehicle Weight, W	27.00	ton

Paved Road Emissions

Predictive Emission Factor Equation (3) $E = \{[k*(sL)^{0.91}*(W)^{1.02}]*(1-P/4N)\}*CE$

Particle Size Multiplier - PM10, k	2.20E-03	
Calculated Emission Factor - PM10, E	0.37	lb/VMT
Total Miles Travelled - Paved Roads (1)	670	VMT/yr
Calculated Emissions - PM10	0.06 tpy	0.05 lb/hr

Unpaved Road Emissions

Predictive Emission Factor Equation (4) $[k*(s/12)^{a}*(W/3)^{b}]*[(365-P)/365)$

Particle Size Multiplier - PM10, k	1.50	
Calculated Emission Factor - PM10, E	1.81	lb/VMT
Total Miles Travelled - Unpaved Roads (1)	594	VMT/yr
Calculated Emissions - PM10	0.27 tpy	0.21 lb/hr

[1] Source: Newby Island Sanitary Landfill and Recyclery, 2019

[2] Assumed

[3] EPA, "Emissions Factors & AP 42, Compilation of Air Pollutant Emission Factors," Section 13.2.1, Jan. 2011.

[4] EPA, "Emissions Factors & AP 42, Compilation of Air Pollutant Emission Factors," Section 13.2.2, Nov. 2006.

[5] Assumed

[6] Conservative estimate based on actual site data

Customer to Colorizer

Site Specific Information

Paved Road Length (1)	0.5	mi
Unpaved Road Length (1)	1.1	mi
No. of Hours of Operation Per Day (2)	8.0	hr/day
No. of Days in Averaging Period, N (2)	312	day/yr
No. of Hours of Operation Per Averaging Period	2,496	hr/yr
No. of "Wet" Days (i.e., at least 0.01 in. precip), P (3)	60	day/yr
Silt Loading, sL (3)	7.40	g/m^2
Surface Material Silt Content, s (3)	6.0	%
Control Efficiency, CE (2)	50%	

Calculation of Mean Vehicle Weight

Vehicle Type	Vehicle Weight[1] Unloaded (ton)	Vehicle Weight[1] Loaded (ton)	Average (ton)	Vehicles Per Day[6]
Transfer Trailer	17	37	27	1
Front Loader	20	26	23	0
Rear Loader	20	34	27	0
Roll Off	16	20	18	0
Dump Truck	14	40	27	0
Residential	5	1	3	1

Total Vehicle Count	2	day^{-1}
Mean Vehicle Weight, W	18.28	ton

Paved Road Emissions

Predictive Emission Factor Equation (3) $E = \{[k*(sL)^{0.91}*(W)^{1.02}]*(1-P/4N)\}*CE$

Particle Size Multiplier - PM10, k	2.20E-03	
Calculated Emission Factor - PM10, E	0.25	lb/VMT
Total Miles Travelled - Paved Roads (1)	611	VMT/yr
Calculated Emissions - PM10	0.04 tpy	0.03 lb/hr

Unpaved Road Emissions

Predictive Emission Factor Equation (4) $[k*(s/12)^{a}*(W/3)^{b}]*[(365-P)/365)$

Particle Size Multiplier - PM10, k	1.50	
Calculated Emission Factor - PM10, E	1.51	lb/VMT
Total Miles Travelled - Unpaved Roads (1)	1,330	VMT/yr
Calculated Emissions - PM10	0.50 tpy	0.40 lb/hr

[1] Source: Newby Island Sanitary Landfill and Recyclery, 2019

[2] Assumed

[3] EPA, "Emissions Factors & AP 42, Compilation of Air Pollutant Emission Factors," Section 13.2.1, Jan. 2011.

[4] EPA, "Emissions Factors & AP 42, Compilation of Air Pollutant Emission Factors," Section 13.2.2, Nov. 2006.

[5] Assumed

[6] Conservative estimate based on actual site data

REPUBLIC SERVICES

Newby Island Landfill 1601 Dixon Landing Road, Milpitas, CA 95035
o 408.262.1401 f 408.270.8992 republicservices.com

February 10, 2020

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

Re: Notice of Violation (NOV) Amendment Follow-Up Response
NOV Number A56525 (A, B, C)
Newby Island Sanitary Landfill and Recyclery, Milpitas, California
Facility Number A9013

Dear Mr. Gove:

The Newby Island Sanitary Landfill and Recyclery (Newby Island) (Facility Number A9013), owned and operated by International Disposal Corporation of California, Inc. (IDCC), submits this follow-up response to acknowledge the receipt of the NOV record amendment from the BAAQMD dated December 30, 2019. IDCC has reviewed the amendments and has updated its records regarding NOV A56525 (A, B, C) (originally issued on August 21, 2018, violation date July 6, 2018) with the changes noted in the amendment letter.

If you have any questions or require additional information, please do not hesitate to contact me at (408) 586-2263 or by email at rhuber2@republicservices.com.

Sincerely,

Rachelle Huber
Environmental Manager
Newby Island Sanitary Landfill

cc: Anthony Boccaleoni, IDCC
Meghan Caesar, Tetra Tech
Suzan Pankenier, Tetra Tech
Daniel Anderson, BAAQMD

REPUBLIC SERVICES

Newby Island Landfill 1601 Dixon Landing Road, Milpitas, CA 95035
o 408.262.1401 f 408.270.8992 republicservices.com

February 10, 2020

Ms. Tamiko Endow
Senior Air Quality Engineer
Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, CA 94105

RE: Responsible Official Designation and Petition for Approval
Facility Numbers A9013 and A5472
Newby Island Sanitary Landfill and Recyclery, Milpitas, California

Dear Ms. Endow:

I, Daniel North, as the International Disposal Corporation of California (IDCC) General Manager, hereby designate myself as the "duly authorized representative" in charge of the overall operation of the Newby Island Sanitary Landfill and Recyclery (Newby Island) pursuant to Bay Area Air Quality Management District (BAAQMD) Regulation 2, Rule 6: Major Facility Review, Section 223.1. BAAQMD Regulation 2, Rule 6-223.1 states:

"Corporation: The responsible official shall be a president, secretary, treasurer, or vice president in charge of a principal business function or shall otherwise be a duly authorized representative if:

1.1 the representative is responsible for the overall operation of the facility, and

1.2 either the duly authorized representative is responsible for the operation of facilities that employ more than 250 persons or that have gross annual sales or expenditures exceeding $25 million in 1980 dollars or the APCO has approved a petition from the original responsible official to allow the duly authorized representative to be the responsible official."

As the "duly authorized representative," I am the "Responsible Official" for the Newby Island Major Facility Review purposes per Regulation 2, Rule 6: Major Facility Review, Section 223.1. I also request that the Air Pollution Control Officer (APCO) approve this petition pursuant to BAAQMD Regulation 2, Rule 6, Section 223.1.2 to designate myself as the "Responsible Official" for Newby Island. Per BAAQMD Regulation 2 Rule 6-223, in my role as General Manager I am responsible for the overall operation of the facility and am responsible for the operation of facilities that have gross annual sales exceeding $71.8 million.

IDCC looks forward to your approval of this Petition and my designation as the "Responsible Official" for Newby Island. I, Daniel North, will act in this capacity unless we receive written denial of this petition.

If you have any questions regarding this request, please do not hesitate to contact me at DNorth@republicservices.com or (408) 586-2281.

Sincerely,

International Disposal Corporation of California

Daniel North
General Manager

cc: Rachelle Huber, Newby Island
Meghan Caesar, Tetra Tech

Engineering Division
Bay Area Air Quality Management District
375 Beale Street, Ste# 600, San Francisco, CA 94105
415-749-4990

Stationary Source Summary
Page 1

FACILITY NAME: Newby Island Sanitary Landfill	FACILITY ID: A9013

♦ DISTRICT USE ONLY ♦

Application #: _____ **Application Received:** _____

Application Filing Fee: _____ **Application Deemed Complete:** _____

I. FACILITY IDENTIFICATION

1. Facility Name: Newby Island Sanitary Landfill & Recyclery	
2. Four digit SIC: 4395	EPA Plant ID: 110006533117
3. Parent Company (if different than Facility Name):	
4. Mailing Address: 1601 Dixon Landing Road, Milpitas,CA 95035	
5. Street Address or Source Location: 1601 Dixon Landing Road, Milpitas, CA 95035	
6. UTM C oordinates (if required):	
7. Source Located within 50 miles of the state line: ☐ Yes ■ No	
8. Source Located within 1000 feet of a school: ☐ Yes ■ No	
9. Type of Orginzation: ■ Corporation ☐ Sole Ownership ☐ Government ☐ Partnership ☐ Utility Company	
10. Legal Owner's Name: International Disposal Corporation of California (IDCC)	
11. Owner's Agent name (if any):	
12. Responsible Official: Daniel North (previously Evan Boyd)	
13. Plant Site Manager/Contact: Rachelle Huber	Telephone #: (408) 586 - 2263
14. Type of Facility: Class III MSW Landfill	
15. General description of processes/products: Active solid waste landfill with an active landfill gas collection and control system with enclosed landfill gas flares.	
16. Is a Federal Risk Management Plan pursuant to Section 112(r) required? ☐ Yes ■ No (If application is submitted after Risk Management Plan due date, attach verification that the plan is registered with the appropriate agency.)	

Engineering Division
Bay Area Air Quality Management District
375 Beale Street, Ste# 600, San Francisco, CA 94105
415-749-4990

Stationary Source Summary
Page 2

FACILITY NAME: Newby Island Sanitary Landfill | **FACILITY ID:** A9013

II. TYPE OF PERMIT ACTION

	CURRENT PERMIT (permit number)	EXPIRATION (date)
☐ Initial Title V Application		
☐ Permit Renewal		
☐ Significant Permit Modification		
☐ Minor Permit Modification		
■ Administrative Amendment	Permit for Facility #: A5472 and A9013; Issued 12/21/2012	12/21/2017

III. DESCRIPTION OF PERMIT ACTION

1. Does the permit action requested involve:
- ☐ Temporary Source
- ☐ Voluntary Emissions Caps
- ☐ Acid Rain Source
- ☐ Alternative Operating Scenarios
- ☐ CEM's
- ☐ Abatement Devices
- ■ Source Subject to MACT Requirements [Section 112]
- ☐ Source Subject to Enhanced Monitoring

2. Is source operating under a Compliance Schedule? ☐ Yes ☐ No

3. For permit modification, provide a general description of the proposed permit modification: Administrative amendment requesting change of Responsible Official from Mr. Evan Boyd to Mr. Daniel North per "Responsible Official Designation and Petition for Approval" dated February 5, 2020.

Signature of Responsible Official

Daniel North
Print Name of Responsible Official

General Manager
Title of Responsible Official and Company Name

Date: 02/05/2020

Bay Area Air Quality Management District
375 Beale Street, Suite 600 San Francisco, CA 94105
Engineering Division (415) 749-4990
www.baaqmd.gov Fax: (415) 749-5030

Facility Information Update Form

When Do I Use This Form?

Use this form to do any of the actions listed in the table below (check the actions that apply).

*Note: Whether you change business name, transfer ownership, or update facility information, the **permitted equipment must continue to be operated at the same location**.*

√	You can…	Important Notes
☐	Update business name	***Business Name*** is the name used to conduct business. It may be the name of an individual, partnership, company, corporation, other entity, or it may be a fictitious name as filed with the county clerk.
☐	Update dealer's name **(for gas stations only)**	***Dealer of a gas station*** is the individual, partnership, limited liability company, corporation, or other entity that pays the day-to-day costs of running the station. However, they may not be contractually responsible for maintaining the permit to operate.
☐	Transfer ownership	***Transfer of Ownership*** is a transfer of all permitted sources (***full transfer***) or just some of the permitted sources (***partial transfer***) at the current location to a new owner. ***Owner*** is the individual, partnership, limited liability company, corporation, or other entity that owns or controls the permitted equipment and is responsible for the permit to operate. If no fictitious name is used, the owner can be the same name as the business name above.
☒	Update facility contact information	• All correspondence from the BAAQMD (Data Update Forms, Reminder Letters, Renewal Invoices and copies of renewed Permits to Operate) will be directed to this address. • For gas stations, the term "facility contact information" = the term "billing contact information." • Note that original Permits to Operate will always be sent to either the facility's physical address or the alternative mailing address.
☐	Update alternative mailing address **(not for gas stations)**	***Alternative mailing address***: • Cannot be used by gas stations • Should only be provided if the mail can not be delivered to the site's physical address, and • Will be used to mail renewed Permits to Operate if mail can not be received at the physical location of the facility.
☐	Close facility	***Closing facility*** means you are ceasing permanently all your operations or dismantling all of your sources and are requesting cancellation of all your Permits to Operate.

How Do I Complete This Form?

Step 1) Provide the following information:

Action	Required Information
Provide current District ID number for the facility (plant #, site #, or G # as it appears on the Permit to Operate or invoice) and circle the type of ID you provide.	Plant# / Site # / G# (gas stations): A9013
Provide current business name (as it appears on the Permit to Operate or invoice).	Current Business Name: Newby Island Sanitary Landfill & Recycle
Provide physical address of your facility or permitted equipment.	Street # & Name: 1601 Dixon Landing Road City: Milpitas State: CA Zip: 95035 Phone: (408) 586 - 2281
Provide your name, title, email address, and the date when you complete this form.	First and Last Name: Daniel North Title: General Manager Date: 02/05/2020 Email: DNorth@republicservices.com

Step 2) Find sections below that are applicable to you and follow the instructions within these sections.
Step 3) Mail this form to: BAAQMD, 375 Beale St., Ste 600, San Francisco, CA 94105, ATTN: Permit Systems Section.

Changing Business Name

If you need to change/correct your business name as it appears on your permit, perform the action in the table below.

Action	Required Information
Provide new business name as it should appear on the Permit to Operate. (Gas Stations should include name on the sign or "brand" of the station if applicable.)	New Business Name:

Bay Area Air Quality Management District
375 Beale Street, Suite 600 San Francisco, CA 94105
Engineering Division (415) 749-4990
www.baaqmd.gov Fax: (415) 749-5030

Form FIU
Facility Information Update
Changes to Ownership, Contact, Closures

Updating Dealer's Name

If you need to change/correct the dealer's name, perform the action in the table below.

Action	Required Information
If different from owner, provide the name of the new dealer at the gas station.	New Dealer's Name: _____

Transferring Ownership

If you need to update ownership records, follow the steps in the table below.

Step	Action	Required Information
1	Provide name of new owner (individual, company or corporation) and, if the new owner is an individual, provide his/her title.	New Owner's Name: _____ Title (if applicable): _____
2	Provide name of previous owner (individual, company or corporation) and, if the previous owner is an individual, provide his/her title.	Previous Owner's Name: _____ Title (if applicable): _____
3	Indicate whether the transfer of ownership is ***full*** (all the permitted sources are transferred to the new owner) or ***partial*** (only some permitted sources are transferred to the new owner). If the transfer is ***partial***, list all of the transferred sources and abatement devices or attach this list. *Note: The BAAQMD will review your request for partial transfers and may require additional explanation.*	☐ Full Transfer ☐ Partial Transfer Transferred Sources/Abatement Devices (for partial transfers): _____ _____ _____
4	Provide the effective date of the transfer.	Effective Transfer Date: _____

Updating Facility Contact Information

If you need to update the facility contact information (also known as billing contact information for gas stations), follow the steps in the table below.

Step	Action	Required Information
1	If applicable, provide name of new contact and the title of that person's position.	New Contact Name: Daniel North Title (if applicable): General Manager
2	If applicable, provide new contact information for the plant contact.	Street # & Name: 1601 Dixon Landing Road City: Milpitas State: CA Zip: 95035 Phone: (408) 586 - 2281 Email: DNorth@republicservices.com

Updating Alternative Mailing Address

If you need to update facility mailing address (and your facility is NOT a gas station), perform the action in the table.

Action	Required Information
Provide new mailing address for your facility.	Street # & Name: _____ City: _____ State: _____ Zip: _____

Closing Facility

If you are closing **all** of your sources, follow the steps in the table below.

Step	Action	Required Information
1	Indicate whether all of your permitted sources are ceased or dismantled.	☐ All permitted sources have ceased operation only. ☐ All permitted sources have been dismantled and require rebuild to operate.
2	Provide the end date of operation or date of dismantlement.	Closing Date: _____

REPUBLIC SERVICES

Newby Island Landfill 1601 Dixon Landing Road, Milpitas, CA 95035
o 408.262.1401 f 408.270.8992 republicservices.com

February 18, 2020

Mr. Raymond Salalila
Air Quality Specialist
Compliance and Enforcement Division
Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, CA 94105

Re: Request for Limited Exemption (for Construction Activities) from Regulation 8, Rule 34 (Solid Waste Disposal Sites) Section 113 (Inspection and Maintenance), Section 116 (Well Raising), Section 117 (Gas Collection and System Components), Section 301.1 and 301.2 (Landfill Gas Collection and Emission Control System Requirements), Section 303 (Landfill Surface Requirements), and Section 305 (Wellhead Requirements) Regulation 8, Rule 34, Section 118 Construction Plan
Newby Island Sanitary Landfill and Recyclery, Facility Number A9013

Dear Mr. Salalila:

International Disposal Corporation of California (IDCC) hereby requests a limited exemption from the requirements of the Bay Area Air Quality Management District's (BAAQMD) Regulation 8, Rule 34, Section 113 (Inspection and Maintenance), Section 116 (Well Raising), Section 117.1 through 117.6 (Gas Collection and System Components), Sections 301.1 and 301.2 (Landfill Gas Collection and Emissions Control System Requirements), Section 303 (Landfill Surface Requirements), and Section 305 (Wellhead Requirements), during wellfield construction activities at the Newby Island Sanitary Landfill and Recyclery (Newby Island). This notification is being submitted pursuant to Regulation 8, Rule 34, Section 118, "Limited Exemptions for Construction Activities." The construction work consists of the staking and installation offour caisson wells (i.e. three vertical landfill gas [LFG] wells), and the installation of up to four horizontal LFG collectors. Construction is estimated to begin on February 24, 2020 and conclude by March 20, 2020, for a total duration of approximately four weeks.

This letter also includes the BAAQMD-required construction plan (work plan) for the proposed work. The work plan contains information required pursuant to Regulation 8, Rule 34, Section 118.1 and includes:

- Description of actions being taken;
- Description of landfill areas affected;
- Description of LFG components affected;
- Map showing the affected areas and components;

- Reason(s) requiring the action;
- Construction schedule; and
- Description of air quality mitigation measures planned.

No significant interruption of the current site LFG extraction and control operations is anticipated during the work, and IDCC and/or a construction quality assurance (CQA) contractor on behalf of IDCC will monitor construction activities to ensure compliance. The construction crew will mobilize to the site by February 24, 2020. We anticipate these construction activities to be concluded by March 20, 2020. The construction and initial operating date for each new component shall be recorded pursuant to requirements in Regulation 8, Rule 34, Sections 116, 117, and 501.

Unless notified otherwise, IDCC will proceed in accordance with the attached work plan. Unless otherwise notified, we deem submittal of this plan as approved by the BAAQMD to take necessary action to ensure compliance with the BAAQMD regulations, which may include taking additional wells offline for an extended period of time pursuant to Regulation 8, Rule 34, Section 118. If you have any questions, please do not hesitate to contact us. Thank you for your consideration.

Sincerely,

Rachelle Huber
Environmental Manager
Newby Island

Enclosure: BAAQMD Regulation 8, Rule 34, Section 118 Construction (Work) Plan

cc: Tamiko Endow, BAAQMD
Daniel Anderson, BAAQMD
Meghan Caesar, Tetra Tech
Suzan Pankenier, Tetra Tech
Gavin Casson, Tetra Tech
Sami Ayass, Tetra Tech

BAAQMD Rule 8-34-118 Construction Plan
Newby Island Sanitary Landfill and Recyclery
February 24, 2020 through March 20, 2020

Introduction

This Construction Work Plan is being submitted by the International Disposal Corporation of California (IDCC), for the Newby Island Sanitary Landfill and Recyclery (Newby Island) pursuant to the Bay Area Air Quality Management District (BAAQMD) Regulation 8, Rule 34, Section 118: Limited Exemptions for Construction Activities (118 Plan). To obtain an exemption from BAAQMD Regulation 8, Rule 34:

- Section 113;
- Section 116;
- Sections 117.1 through 117.6;
- Section 118;
- Sections 301.1 through 301.2;
- Section 303; and
- Section 305.

To obtain exemptions from the aforementioned sections of BAAQMD Regulation 8, Rule 34, the operator shall submit a construction plan in writing to the Air Pollution Control Officer (APCO) prior to beginning any construction activities.

Section 303 requires maintaining the concentration of organic compounds and methane below 500 parts per million by volume (ppmv) at all points on the landfill surface. Section 118 provides an exemption from the surface emission standard for *"...areas of the landfill surface where the landfill cover material has been removed and refuse has been exposed for the express purpose of installing, expanding, replacing, or repairing components of the landfill gas, leachate, or gas condensate collection and removal systems."*

Pursuant to Regulation 8, Rule 34, Section 118 (subsections 1.1 through 1.7), this work plan includes:

- Description of actions being taken;
- Description of landfill areas affected;
- Description of landfill gas (LFG) components affected;
- Map showing the affected areas and components;
- Reason(s) requiring the action;
- Construction schedule; and
- Description of air quality mitigation measures planned.

Actions Being Taken

The construction work will include the staking and installation of three caisson vertical LFG extraction wells and the installation of six horizontal LFG collectors.

Affected Landfill Areas

The construction activities will occur in various areas of the municipal solid waste (MSW) portion of the landfill as shown on the Construction Plan As-Built Map for Newby Island, included as an attachment to this Work Plan.

Affected LFG Components

Construction will be performed such that it will have minimal impact on the routine operation of the existing gas collection and control system (GCCS). IDCC and/or a construction quality assurance (CQA) contractor on behalf of IDCC will monitor construction activities to ensure compliance and track construction activities and new LFG well installation data (dates and times that new LFG wells are brought online). At the time of the submittal of this plan, the GCCS is expected to operate continuously, pursuant to Regulation 8, Rule 34, Section 301.1. No wells are scheduled to be taken offline during construction activities. However, wells within the radius of influence (ROI) of planned installation may potentially be temporarily disconnected on an as-needed basis, pursuant to Regulation 8, Rule 34, Section 117. Isolation valves installed within the existing GCCS piping network will be used to minimize the number of LFG collectors offline during connection of the new LFG collectors to the existing GCCS. No more than five LFG collection wells will be shut down at any time. All wellfield startup, shutdown, and malfunction (SSM) events will be recorded pursuant to Regulation 8, Rule 34, Section 501.

Reasons for Actions

The proposed construction work is intended to:

- Improve the efficiency of the liquids management system;
- Install new horizontal and vertical LFG collection wells;
- Increase LFG collection efficiency to further reduce the potential for subsurface migration;
- Increase LFG collection efficiency to further reduce the potential for surface emissions; and
- Address persistent integrated surface emissions monitoring (SEM) exceedances detected during the Fourth Quarter 2019 SEM event.

Construction Schedule

The construction is anticipated to begin on February 24, 2020 and end by approximately March 20, 2020 and is summarized in the table below.

Table 1 – Preliminary Construction Schedule

Task	Project Week and Duration
Mobilize crew, equipment, and materials to site. Begin drilling and installation of wells.	Week 1
Drilling and installation of wells.	Week 2
Header improvements for new well connections, and installation of horizontals.	Week 3
Clean-up and demobilize crew and materials.	Week 4
Start up of horizontal collectors, subsequent tuning by Operations & Maintenance (O&M) personnel.	Week 4

Air Quality Mitigation Measures

Emissions of raw LFG will be minimized during these activities. IDCC anticipates minimal interruption of the overall GCCS during the work. Additionally, the area of construction is known to not contain asbestos. Therefore, no further asbestos notification is required pursuant to BAAQMD Regulation 11, Rule 2.

Air quality impacts due to construction activities are anticipated to be minimal. Air quality mitigation will be provided during the following work tasks:

- Drilling of vertical wells and trenching of horizontal collectors;
- Connection of piping to new horizontal and the existing GCCS piping network; and
- GCCS header improvements to accommodate new LFG wells.

During excavation through the waste and soil cover, air emissions will be controlled by implementing the following measures:

- Minimizing the installation time for each component;
- Minimizing the quantity of open excavations at any one time, by drilling one LFG well at a time;
- Covering excavated refuse immediately, and relocating it to the active waste disposal area within 24 hours or as soon as possible based on site operations; and
- Not leaving excavations open overnight or for over eight hours.

During the construction activities, air emissions will be controlled by implementing the following measures:

- Temporary capping or installing blind flanges on open pipes and LFG extraction well casings, which will remain sealed until permanently connected to a vacuum source;

- Using isolation valves, where possible, when making connections into the existing GCCS piping network;
- Minimizing the excavation depths and time;
- Minimizing the amount of open pipe or well casings during each installation; and
- Ensuring that the Republic Standard Operation Procedures (SOP) are followed and that all activities are performed in compliance with applicable regulations by stationing CQA personnel near the construction area to observe and record construction activities.

The date and start-up time for each LFG collector shall be recorded, pursuant to requirements for documenting individual horizontal collector start-up times in Regulation 8, Rule 34, Section 501. A Well Startup Notification(s) regarding the startup of six new horizontal LFG collectors and three vertical caisson LFG wells will be provided to the BAAQMD upon completion of these events.

Attachment: Construction Plan As-Built Map

Attachment

Construction Plan As-Built Map

REPUBLIC SERVICES

Newby Island Landfill 1601 Dixon Landing Road, Milpitas, CA 95035
o 408.262.1401 f 408.270.8992 republicservices.com

March 2, 2020

Ms. Tamiko Endow
Principal Air Quality Engineer
Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, CA 94105

Ms. Roshni Brahmbhatt
Air Enforcement Section
USEPA, Region IX
75 Hawthorne Street
San Francisco, CA 94105

Re: Initial NSPS Subpart XXX Annual Report
Newby Island Sanitary Landfill and Recyclery, Milpitas, California
Plant Number A9013

Dear Ms. Endow and Ms. Brahmbhatt:

As required by 40 Code of Federal Regulations (CFR) Part 60, Subpart XXX, attached is the Initial New Source Performance Standards (NSPS) Subpart XXX Annual Report for Newby Island Sanitary Landfill and Recyclery (Newby Island) for the reporting period of September 1, 2019 through December 31, 2019.

Newby Island is subject to NSPS Subpart XXX since it commenced construction, reconstruction, or modification after July 17, 2014. In accordance with Title 40 CFR §60.762(b)(2), Newby Island was required to initiate gas collection and control system (GCCS) operations, including associated monitoring, recordkeeping, and reporting, on September 4, 2019 (30 months after the submittal of a non-methane organic compounds [NMOC] Emissions Rate Report). For ease of recordkeeping, Newby Island elected to begin reporting effective September 1, 2019.

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

Sincerely,

International Disposal Corporation of CA

Rachelle Huber
Environmental Manager

Enclosure: Initial NSPS Subpart XXX Annual Report

Cc: Tony Boccaleoni, IDCC
Meghan Caesar, Tetra Tech
Suzan Pankenier, Tetra Tech

Initial NSPS Subpart XXX Annual Report

Landfill Gas and Collection Control System

Newby Island Sanitary Landfill and Recyclery

MARCH 2, 2020

PRESENTED TO

International Disposal Corporation of California, Inc. (IDCC)
1601 Dixon Landing Road
Milpitas, CA 95035

SUBMITTED BY

Tetra Tech
7600 Dublin Blvd., Suite 200
Dublin, CA 94568

P +1.877.294.9070
F +1.877.845.1456
tetratech.com

REPORT CERTIFICATION

The material and data in this report were prepared under the supervision and direction of the undersigned.

03/02/20

Meng Yuan — Date
Environmental Scientist

03/02/20

Meghan Caesar — Date
Project Manager

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APPENDIX SECTIONS

APPENDICES

1.0 INTRODUCTION

The Newby Island Sanitary Landfill and Recyclery (Newby Island) is a municipal solid waste (MSW) landfill located in Milpitas, Santa Clara County and is owned by the International Disposal Corporation of California, Inc. (IDCC). The facility is subject to the requirements of the United States Environmental Protection Agency's (USEPA) *Standards of Performance for Municipal Solid Waste Landfills*; 40 Code of Federal Regulations (CFR) Part 60, Subpart XXX and as such is submitting this Initial New Source Performance Standards (NSPS) Subpart XXX Annual Report.

Newby Island is subject to NSPS Subpart XXX since it commenced construction, reconstruction, or modification after July 17, 2014. In accordance with Title 40 CFR §60.762(b)(2), a Design Capacity and Non-Methane Organic Compound (NMOC) Report that demonstrated emissions at Newby Island equaled or exceeded the 34 megagrams/year (MG/year) threshold was submitted to the Bay Area Air Quality Management District (BAAQMD) and USEPA on March 6, 2017. Pursuant to NSPS Subpart XXX, Newby Island was required to initiate gas collection and control system (GCCS) operations, including associated monitoring, recordkeeping, and reporting, on September 4, 2019 (30 months after the submittal of the NMOC Emissions Rate Report). For ease of recordkeeping, Newby Island elected to begin reporting effective September 1, 2019.

Newby Island has not recirculated leachate in the past 10 years, therefore the reporting requirements of §60.767(k) are not required for this submittal.

2.0 ANNUAL NSPS SUBPART XXX REPORTING REQUIREMENTS

Records are prepared and maintained in accordance with Title 40 CFR §60.768. The primary location for records storage is Newby Island. IDCC is submitting this Initial Annual Report in accordance with §60.762(b)(2). The following summarizes the report requirements for the Initial Annual Report pursuant to Part §60.767(g).

2.1 SECTION 60.767 (G) – REPORTING

The owner or operator of a landfill seeking to comply with §60.762(b)(2) using an active collection system designed in accordance with §60.762(b)(2)(ii) must submit to the Administrator, following the procedure specified in paragraph (i)(2) of this section, annual reports of the recorded information in paragraphs (g)(1) through (7) of this section.

2.2 SECTION 60.767 (G)(1) – MONITORING AND EXCEEDANCES

Value and length of time for exceedance of applicable parameters monitored under §60.766 (a), (b), (c), (d), and (g).

2.2.1 §60.766 (a) – Wellhead Monitoring

> *Requires each owner or operator seeking to comply with §60.762(b)(2)(ii)(C) for an active gas collection system to install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead; and (1) measure the gauge pressure in the gas collection header and (2) monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis, and monitor temperature of the landfill gas on a monthly basis.*

Each landfill gas (LFG) collector (i.e. vertical wells, horizontal collectors, etc.) is equipped with an access port allowing for measuring temperature at each wellhead. On a monthly basis, operations and maintenance (O&M) personnel measure the gauge pressure, temperature, and oxygen concentration at each wellhead. The gauge pressure taken at the wellhead is used in determining the presence of vacuum at the LFG collector. Measurements are taken with a portable meter which is calibrated per the manufacturer's specifications.

2.2.1.1 Wellhead Exceedances

During the reporting period, there were a total of 127 exceedances of the parameters set forth in §60.762. Corrective action for these wells was initiated within the required five-day timeframe and re-monitoring was completed within 15 days of the exceedance. See Appendix A for wellfield exceedances.

2.2.1.2 Higher Operating Value Wells

Each owner or operator must comply with §60.763(c), which states that the owner or operator must operate each interior wellhead in the collection system with a LFG temperature less than 55 degrees Celsius (131 degrees Fahrenheit[º]). The owner or operator may establish a higher operating value (HOV) temperature value at a particular well. An HOV request must be submitted to the administrator for approval and must include supporting data demonstrating that the elevated parameter neither causes fires nor significantly inhibits anaerobic decomposition by killing methanogens.

Pursuant to Title V Permit Condition Number 10423, Part 6(d)(i), the following wells are approved to operate at a temperature HOV of 145ºF: NI3EW30R, NIL3EW09, NIL3EW13, NILEW072, NILEW101, NILEW103, NILEW13R, NILEW20R, NILEW224, NILEW237, NILHC201, NI3EW39R, NILEW00A, NILEW00D, NILEW00E, NILEW019, NILEW025, NILEW106, NILEW218, NILEW224, NILEW243, NILEW51R, NILEW54R, NI3EW07R, NIL3EW31, NILEW106, NILEW464, NILEW466, NILEW479, NILEW481, NILEW482, NILEW488, NILEW489, NILEW497,

NILEW511, NILEW568, NILEW570, NILEW599, NILEW601, NILEW604, NILEW617, NILEW621, NILEW622, NILEW623, NILEW626, NILEW628, NILEW663, NILEW664, NILEW665, NILEW666, and NILEW667.

Pursuant to Title V Permit Condition Number 10423, Part 6(d)(ii), the following well is approved to operate at a temperature HOV of 150ºF: NI3EW07R. On December 27, 2019, IDCC submitted a request to the BAAQMD and USEPA for existing NSPS Subpart WWW approvals to include approval under NSPS Subpart XXX.

2.2.2 §60.766 (b) – Enclosed Combustor

Requires each owner or operator seeking to comply with §60.762(b)(2)(iii) using an enclosed combustor to calibrate, maintain, and operate the device according to manufacturer's specification, the following equipment: temperature monitoring and recording device and flow monitoring and recording device, including flow to and bypass of the enclosed combustor.

Newby Island owns and operates two enclosed combustors, the A-2 and A-3 Flares, which began operation in 2007 and 2015, respectively. Each flare is operated in accordance with Title V Permit Condition Number 10423, Part 8. As required, the combustion zone temperatures of the flares are monitored with Thermo-Electric Thermocouples. The temperature is recorded with a Yokogawa digital recorder, which is downloaded and archived. Temperature data is continuously monitored and recorded at least once every 15 minutes.

The flare LFG flow rate is measured with a Thermal Instruments flowmeter. The control panel displays the LFG flow and the digital Yokogawa data recorder records LFG flow every two minutes and is downloaded and saved to a compact flash card. The flow meter is maintained and calibrated pursuant to manufacturer's recommendations. The flowmeter sends the data to the digital data recorder that records flow at least every 15 minutes.

The GCCS is not designed nor equipped to bypass the control devices; therefore §60.766(b)(2)(ii) is not applicable.

2.2.3 §60.766(c) – Non-enclosed Combustor

Requires each owner or operator seeking to comply with §60.762(b)(2)(iii) using a non-enclosed combustor to calibrate, maintain, and operate the device according to manufacturer's specification, the following equipment: temperature monitoring device and flow monitoring and recording device, including flow to and bypass of the non-enclosed combustor.

Newby Island does not own and/or operate a non-enclosed (e.g., open flare) combustor; therefore §60.766(c) is not applicable.

2.2.4 §60.766(d) – Other Control Devices

Requires each owner or operator seeking to comply with §60.762(b)(2)(iii) using a device other than a non-enclosed flare or an enclosed combustor or a treatment system must provide information in accordance with §60.767(c)(2).

Newby Island does not operate a device other than a non-enclosed flare, enclosed combustor, or a treatment system, therefore §60.766(d) is not applicable.

2.2.5 §60.766(g) – Treatment Systems

Requires each owner or operator seeking to comply with §60.762(b)(2)(iii) using a landfill gas treatment systems to maintain and operate all monitoring systems associated with the treatment systems according to site-specific treatment system monitoring required in 60.768 (b)(5)(ii) and must calibrate, maintain and operate according to manufacturer's specifications a device that records flow to the treatment system and bypass of the treatment system (if applicable).

Newby Island does not own and/or operate a LFG treatment system; therefore §60.766 (g) is not applicable.

2.3 SECTION 60.767 (G)(2) – BYPASS LINE

Description and duration of all periods when the gas stream was diverted from the control device or treatment system through a bypass line or the indication of bypass flow as specified under §60.766.

The GCCS at Newby Island is not designed nor equipped to bypass the control device(s); therefore §60.767(g)(2) is not applicable.

2.4 SECTION 60.767(G)(3) – CONTROL DEVICE DOWNTIME

Description and duration of all periods when the control device or treatment system was not operating and length of time the control device or treatment system was not operating.

Refer to Appendix B for the shutdown, start-up and malfunction (SSM) log including the summary of all the periods when the A-2 and A-3 Flares were not operating for the reporting period of September 1, 2019 through December 31, 2019.

Given Newby Island became subject to NSPS Subpart XXX reporting requirements as of September 1, 2019, the next annual report will include a full calendar year of reporting and is due by March 2, 2021.

2.5 SECTION 60.767(G)(4) – COLLECTION SYSTEM DOWNTIME

All periods when the collection system was not operating.

The total GCCS downtime for the reporting period of September 1, 2019 through December 31, 2019 was 27.53 hours. GCCS downtime is determined when neither the A-2 nor A-3 Flares were operating. A table provided in Appendix C summarizes all the periods when the GCCS was not in operation.

Given Newby Island became subject to NSPS Subpart XXX reporting requirements as of September 1, 2019, the next annual report will include a full calendar year of reporting and is due by March 2, 2021.

2.6 SECTION 60.767(G)(5) – SURFACE EMISSIONS REPORTING

The location of each exceedance of the 500 parts per million (ppm) methane concentration as provided in 60.763(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month. For location, you must determine the latitude and longitude coordinates using an instrument with an accuracy of at least 4 meters. The coordinate must be in decimal degrees with at least five decimal places.

Quarterly NSPS surface emissions monitoring (SEM) was performed at Newby Island by a contracted third party. The results of the monitoring indicate that methane emissions at the landfill surface that exceeded the NSPS requirement of 500 parts per million above background (ppm) were remediated and rechecked within the timeframe required by the NSPS.

The Fourth Quarter 2019 SEM event was completed on November 28, 2019. As of the 30-day re-monitoring, there were 19 instantaneous exceedances that remained. Based on the results, GCCS upgrades and/or GCCS expansion is planned to occur within the required 120 days of the initial exceedances. The 120-day compliance deadline is March 18, 2020.

The Fourth Quarter 2019 SEM report is provided in Appendix D.

2.7 SECTION 60.767(G)(6) – COLLECTION SYSTEM EXPANSION

The date of installation and the location of each well or collection system expansion added pursuant to 60.765 (a)(3), (a)(5), (b), and (c)(4).

During this reporting period, 55 new extraction wells were installed at Newby Island. The new wells are adding to the performance of the GCCS by abating potential surface emissions and the subsurface migration of LFG. Refer to Appendix E for further detail on the wells started up during the reporting period.

Appendix I includes the most recent as-built map, including approximate location of the new wells. This figure is also being submitted as an update to the site's NSPS Subpart XXX GCCS Design Plan (replacing drawing "Current GCCS As-Built," dated February 2018), previously submitted to the BAAQMD and USEPA on March 6, 2018.

2.8 SECTION 60.767(G)(7) – CORRECTIVE ACTION/ROOT CAUSE ANALYSIS

For any corrective action analysis for which corrective actions are required in 60.756 (a)(3) or (5) and that take more than 60 days to correct the exceedance the root cause analysis conducted, including a description of the recommended corrective action(s), the date for corrective action(s) already completed following the positive pressure reading, and, for action(s) not already completed a schedule for implementation including proposed commencement and completion dates.

During the reporting period, there were three wellhead exceedances were not corrected within 60 days. Therefore, the site conducted the root cause and corrective action analyses and recorded this information, along with the additional required information for exceedances lasting greater than 75 days, such as required corrective actions and implementation timelines to correct exceedances. Please refer to Appendix F for further detail.

3.0 ADDITIONAL INITIAL NSPS SUBPART XXX REPORTING REQUIREMENTS

The following information is required under Title 40 CFR §60.767(h) for NSPS Subpart XXX Initial Report submittals pursuant to NSPS Subpart XXX requirements for MSW landfills. The required Initial Report information is included in the following sections and/or was provided within the NSPS Subpart XXX GCCS Design Plan, which was submitted to the BAAQMD on March 6, 2018.

The following summarizes the NSPS Subpart XXX Initial Report requirements within §60.767(h) and addresses the reporting requirements within (h)(1) through (h)(6).

3.1 SECTION 60.767 (H) – INITIAL PERFORMANCE TEST

> *Each owner or operator seeing to comply with §60.762 (b)(2)(iii) must include the required information with the initial performance test required under §60.8.*

The initial performance test for Newby Island was previously conducted on April 16, 1998 under 40 CFR Part 60 Subpart WWW, which established the start of the minimum 15-year control period. A copy of the initial performance test is provided in Appendix H.

3.2 SECTION 60.767 (H)(1) – GAS COLLECTION SYSTEM

> *A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion.*

A diagram depicting the current GCCS layout is provided in Appendix I. This figure is also being submitted as an update to the site's NSPS Subpart XXX GCCS Design Plan (replacing drawing "Current GCCS As-Built," dated February 2018, previously submitted to the BAAQMD and USEPA on March 6, 2018.

3.3 SECTION 60.767 (H)(2) – GAS COLLECTION SYSTEM WELL DENSITY

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

The data upon which the collector density and the gas mover equipment sizing was based was previously submitted in the NSPS Subpart XXX GCCS Design Plan. The collector density and gas mover equipment have been and will continue to be evaluated, and revised as needed, to provide sufficient collection coverage to meet the NSPS SEM requirements.

3.4 SECTION 60.767 (H)(3) – ASBESTOS OR NONDEGRADABLE MATERIAL

> *The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material.*

As stated in the NSPS Subpart XXX GCCS Design Plan, Newby Island does not accept asbestos, therefore no areas of the landfill have been excluded from the coverage of the GCCS for this purpose.

3.5 SECTION 60.767 (H)(4) – EXCLUDED AREAS

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

As stated in the NSPS Subpart XXX GCCS Design Plan, no areas of the landfill are planned to be excluded from the coverage of the GCCS. Newby Island has requested that any portions of the landfill that have been certified closed or have been closed and capped in accordance with the cover conditions according to NSPS Subpart XXX be treated as a closed landfill for SEM events.

3.6 SECTION 60.767 (H)(5) – GAS MOVER EQUIPMENT CAPACITY

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

As stated in the NSPS Subpart XXX GCCS Design Plan, as the LFG extraction rates increase, the GCCS will be expanded as necessary to comply with NSPS requirements. The capacity of the gas mover equipment will continue to be evaluated throughout the life of the site and adjusted as needed to provide increased gas collection capabilities.

3.7 SECTION 60.767 (H)(6) – OFF-SITE MIGRATION

The provisions for the control of off-site migration.

As stated in the NSPS Subpart XXX GCCS Design Plan, the GCCS is designed to minimize off-site migration of subsurface gas by reducing gas pressure within the landfill, as well as extract LFG at a sufficient rate. This is achieved by appropriately sizing and installing sufficient collection devices, transmission piping, LFG mover equipment, and control device(s) for the estimated maximum flow rate of LFG.

4.0 LIMITATIONS

The work product included in the attached was undertaken in full conformity with generally accepted professional consulting principles and practices and to the fullest extent as allowed by law we expressly disclaim all warranties, express or implied, including warranties of merchantability or fitness for a particular purpose. The work product was completed in full conformity with the contract with our client and this document is solely for the use and reliance of our client (unless previously agreed upon that a third party could rely on the work product) and any reliance on this work product by an unapproved outside party is at such party's risk.

The work product herein (including opinions, conclusions, suggestions, etc.) was prepared based on the situations and circumstances as found at the time, location, scope and goal of our performance and thus should be relied upon and used by our client recognizing these considerations and limitations. Cornerstone Environmental Group, LLC shall not be liable for the consequences of any change in environmental standards, practices, or regulations following the completion of our work and there is no warrant to the veracity of information provided by third parties, or the partial utilization of this work product.

REPUBLIC SERVICES

Newby Island Landfill 1601 Dixon Landing Road, Milpitas, CA 95035
o 408.262.1401 f 408.270.8992 republicservices.com

February 28, 2020

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

Re: 10-Day Response to Notice of Violation Number A59431
10-Day and 30-Day Title V Report
Newby Island Sanitary Landfill and Recyclery, Milpitas, California
Facility Number A9013

Dear Mr. Gove:

On behalf of the Newby Island Sanitary Landfill and Recyclery (Newby Island), International Disposal Corporation of California (IDCC) is submitting this 10-Day Response to Notice of Violation (NOV) Number A59431, which was issued by the Bay Area Air Quality Management District (BAAQMD) Inspector, Mr. Daniel Anderson, to Newby Island on February 20, 2020. This letter also satisfies the regulatory requirements for the 10-day and 30-Day Title V Reports required by Title V Permit Condition Section I.F (Monitoring Reports).

NOV Number A59431

NOV Number A59431 was issued by BAAQMD inspector Mr. Daniel Anderson for an alleged violation of BAAQMD Regulation 8, Rule 34, Section 303 (Landfill Surface Requirements) due to the alleged detection of surface leaks exceeding the limit of 500 parts per million by volume (ppmv) at Sub-Area Riser (SAR)-8 during a BAAQMD inspection on January 30, 2020. SAR-8 is a 24-inch sub-area riser pipe that ties into the leachate trench between the Chapter 15 and Subtitle D liner cells. At the time of the inspection, SAR-8 was raised and not in operation as the piping associated with the riser was being evaluated for maintenance due to a subsurface pinch. Upon discovery of the alleged exceedance, corrective action was immediately initiated by site personnel, including the removal of a damaged beacon in the vicinity, as well as inspection and compaction of the cover in the surrounding area.

On January 31, 2020, the BAAQMD inspector returned to the site to complete re-monitoring at SAR-8 and noted that there were no further surface leaks detected and that the site was clear of the initial surface exceedance detected on the day prior.

Conclusion

IDCC is vigilant about ensuring the gas collection and control system (GCCS) at Newby Island is operated in compliance with all applicable regulations and permit conditions. IDCC respectfully requests that NOV A59431 be rescinded as corrective action was initiated immediately and subsequent re-monitoring completed pursuant to Rule 8-34-303 indicated no further surface emissions exceedances were detected.

If you have any questions, please do not hesitate to contact Meghan Caesar at (925) 241-1074 or meghan.caesar@tetratech.com or Rachelle Huber at (408) 586-2263 or rhuber2@republicservices.com.

Sincerely,

Newby Island Landfill

Rachelle Huber

Rachelle Huber
Environmental Manager

cc: Daniel Anderson, BAAQMD
Suzan Pankenier, Tetra Tech
Meghan Caesar, Tetra Tech
Sami Ayass, Tetra Tech

Enclosure: NOV Number A59431

NOV Number A59431

REPUBLIC SERVICES

Newby Island Landfill 1601 Dixon Landing Road, Milpitas, CA 95035
o 408.262.1401 f 408.270.8992 republicservices.com

March 13, 2020

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

Re: 10-Day Response to Notice of Violation Number A59432
Newby Island Sanitary Landfill, Milpitas, California
Facility Number A9013

Dear Mr. Gove:

On behalf of the Newby Island Sanitary Landfill and Recyclery (Newby Island), International Disposal Corporation of California (IDCC) is submitting this 10-Day Response to Notice of Violation (NOV) Number A59432, which was issued by Bay Area Air Quality Management District (BAAQMD) Inspector, Mr. Daniel Anderson, to Newby Island on March 5, 2020 for an alleged violation of BAAQMD Regulation 8, Rule 34, Section 301.1 (Landfill Gas Collection and Control System Requirements [LFGCCS]; Continuous Operation [8-34-301.1]) due to an alleged failure to operate the gas collection and control system (GCCS) continuously on November 27, 2019 from approximately 18:39 until approximately 20:03. Pursuant to BAAQMD Rule 8-34-301.1, the GCCS shall be operated continuously. NOV Number A59432 is related to Reportable Compliance Activity (RCA) Numbers 07Q20 and 07Q21, assigned by the BAAQMD.

NOV Number A59432

On Wednesday, November 27, 2019 at approximately 18:39, the knock-out pot (KOP) at the Newby Island flare station reached capacity and caused the A-2 and A-3 Flares to shut down due to accumulation of excess liquid at the flare station. Personnel from Newby Island's operations and maintenance (O&M) provider, Tetra Tech, were dispatched immediately upon discovery of the shutdown and restarted both flares on November 27, 2019 at approximately 20:12. Prior to the restart, Tetra Tech O&M personnel completed inspection of the flare station and confirmed no additional maintenance was required.

IDCC completed all notification requirements per BAAQMD Regulation 1, Section 523.3 (Parametric Monitoring and Recordkeeping Procedures) and Title V Permit Standard Condition I.F (Monitoring Reports), by filing a verbal report via the BAAQMD after-hours reporting hotline immediately upon discovery of the GCCS downtime on November 27, 2019 at approximately 20:12. Additionally, a Combined RCA Form and 10-Day Title V Letter, and a 30-Day RCA Follow-

Up Notification and 30-Day Title V Report were submitted on November 28, 2019 and December 23, 2019, respectively.

Although draining the KOP is a part of routine activities, there are circumstances caused by weather-related conditions or unprecedented accumulation of liquids in the landfill that may cause the KOP to reach capacity, needing it to be drained more often than the regularly scheduled maintenance events. During this event, the flares shut down as designed once the KOP reached capacity, and site personnel received a call-out to conduct maintenance. Tetra Tech O&M personnel performed maintenance activities immediately upon discovery of flare shutdowns and minimized further potential downtime by returning the flares to operation as quickly as possible. IDCC is currently evaluating improvements to the flare station and design of the KOP system. Additional upgrades are scheduled to be installed in 2020.

During the periods of non-operation, applicable measures were taken pursuant to BAAQMD Regulation 8-34-113, which allows for up to 240 hours of GCCS downtime in any calendar year for the inspection and maintenance of the GCCS, to ensure that the A-2 and A-3 flares were in working condition. This is vital for the continued and proper operation of the GCCS, which is recognized in BAAQMD Regulation 8-34-113.2, which states that the gas collection and emission control systems shall not be shut down for more than 240 hours in any calendar year and a shutdown shall not exceed 5 consecutive days.

Conclusion

IDCC respectfully requests that NOV A59432 be withdrawn as the event was previously self-reported upon discovery of the cause. IDCC followed all required reporting requirements and minimized GCCS downtime by returning the flares to operation as expeditiously as possible. This event was not caused by the failure or breakdown of site equipment, as all equipment was operating within normal parameters and in compliance prior to the KOP reaching capacity. As detailed above, although draining the KOP is a part of scheduled routine maintenance, there are rare circumstances where the KOP may reach capacity at an accelerated rate and unplanned maintenance events will occur. Additionally, in light of the issuance of this NOV, IDCC respectfully requests a meeting with the BAAQMD to discuss GCCS downtime conditions to ensure continued compliance and to avoid potential future NOVs. IDCC is available for this meeting at the BAAQMD's earliest convenience.

IDCC is vigilant about ensuring the GCCS at Newby Island is operated in compliance with applicable regulations and permit conditions.

If you have any questions, please do not hesitate to contact Meghan Caesar at (925) 241-1074 or meghan.caesar@tetratech.com or Rachelle Huber at (408) 586-2263 or rhuber2@republicservices.com.

Sincerely,

Newby Island Landfill

Rachelle Huber
Environmental Manager

cc: Daniel Anderson, BAAQMD
Suzan Pankenier, Tetra Tech
Meghan Caesar, Tetra Tech
Sami Ayass, Tetra Tech

Enclosures: NOV Number A59432
30-Day Follow-Up Notification RCA ID 07Q20/07Q21

NOV Number A59432

30-Day Follow-Up Notification
RCA ID 07Q20/07Q21

REPUBLIC SERVICES

Newby Island Landfill 1601 Dixon Landing Road, Milpitas, CA 95035
o 408.262.1401 f 408.270.8992 republicservices.com

December 23, 2019

Mr. Jeffrey Gove
Director of Compliance and Enforcement
Bay Area Air Quality Management District
Attn: RCA 30-Day Report
375 Beale Street, Suite 600
San Francisco, CA 94105

Submitted via email to:
jgove@baaqmd.gov
rca@baaqmd.gov
compliance@baaqmd.gov

Re: 30-Day Follow-Up Notification to Breakdown Relief Request
30-Day Title V Report
Reportable Compliance Activity ID 07Q20-07Q21
Newby Island Sanitary Landfill and Recyclery, Milpitas, California
Facility Number A9013

Dear Mr. Gove:

Newby Island Sanitary Landfill and Recyclery (Newby Island) (Facility Number A9013), owned and operated by International Disposal Corporation of California, Inc. (IDCC), submits this 30-Day Follow-up Notification to Breakdown Relief Request to the Bay Area Air Quality Management District (BAAQMD) per the requirements of BAAQMD Compliance and Enforcement Breakdown Guidelines Section 1, Part C (Written Report Requirements). This letter also satisfies the 30-day Title V Report requirement, per Title V Permit Condition Section I.F (Monitoring Reports). Pursuant to Title V Permit Condition Number 10423 Part 6, the GCCS shall remain in continuous operation.

On November 27, 2019 at approximately 18:39, the knock-out pot (KOP) at the Newby Island flare station reached capacity and caused the A-2 and A-3 Flares to shut down as excess liquid had accumulated at the flare station. IDCC personnel notified the BAAQMD of the event immediately upon discovery via phone call to the after-hours reporting hotline at (415) 749-4666 on November 27, 2019 at approximately 20:12. On November 28, 2019, IDCC submitted a combined Reportable Compliance Activity (RCA) form and 10-Day Title V Report to the BAAQMD noting a combined request for breakdown relief and parametric excursion report for a brief shutdown of the gas collection and control system (GCCS) at Newby Island. A copy of the RCA form is included in Attachment A of this submittal. On December 2, 2019, the BAAQMD issued RCA Numbers 07Q20 and 07Q21 for the breakdown and parametric excursion, respectively.

When the flares shut down on November 27, 2019, the valves were automatically closed to ensure no excess emissions occurred. All devices were operating in compliance prior to the KOP reaching capacity. Tetra Tech operations and maintenance (O&M) personnel drained the KOP at the flare station and restarted both flares at approximately 20:03 on November 27, 2019. Prior to the restart, Tetra Tech O&M personnel completed inspection of the flare station to ensure operation was within normal parameters and confirmed no additional maintenance was required to the flare station. Temperature and flow records for the A-2 and A-3 flares are included in Attachment B of this submittal.

Tetra Tech O&M personnel were onsite on December 2, 2019 to perform routine weekly inspection and maintenance of the flares. During the routine weekly inspection, Tetra Tech personnel checked pressure gauge readings, conducted sump inspections, and inspected each flare. Moreover, during the routine inspection, Tetra Tech personnel drained the KOP once more, as it was a quarter full since the last draining on November 27, 2019. Copies of the inspection and maintenance logs are included in Attachment C of this letter.

Although draining the KOP is a part of routine activities, there are circumstances that due to weather-related conditions or accumulation of liquids in the landfill, excess liquids may accumulate, and the KOP may need to be drained more often than the scheduled weekly maintenance event. The flares shutdown as designed once the KOP reached capacity, and site personnel received a call-out to conduct maintenance. Tetra Tech O&M personnel performed maintenance activities immediately upon discovery of the GCCS downtime and minimized further potential downtime by returning the flares to operation as quickly as possible.

Lastly, this event was not caused by the failure or breakdown of site equipment, as all equipment was operating within normal parameters and in compliance prior to the KOP reaching capacity. Further, due to the brief nature of this event, it is not believed that excess emissions occurred from the flares during this event as the system was under vacuum prior to any downtime. As it is not believed excess stack emissions occurred from the flares, calculations of estimated fugitive emissions from the landfill during this brief event are included as in Attachment D of this letter.

IDCC is committed to operating its systems in compliance with all applicable regulations and will continue to ensure future compliance.

If you have any questions or require additional information, please do not hesitate to contact Rachelle Huber at (408) 586-2263 or by email at rhuber2@republicservices.com or Meghan Caesar at (925) 241-1074 or by email at meghan.caesar@tetratech.com.

Sincerely,

Rachelle Huber
Environmental Manager
Newby Island Landfill

Attachments: Attachment A – RCA Form 07Q20-07Q21
Attachment B – Flare Temperature and Flow Records
Attachment C – O&M Inspection Records
Attachment D – Estimated Landfill Fugitive Emissions

cc: Anthony Boccaleoni, IDCC
Thomas Bruen, Law Offices of Thomas M. Bruen, P.C.
Suzan Pankenier, Tetra Tech
Meghan Caesar, Tetra Tech
Daniel Anderson, BAAQMD

Attachment A
RCA Form 07Q20-07Q21

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

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 INFORMATION AND DESCRIPTION INFORMATION (REQUIRED)			
Company	International Disposal Corporation of CA	Site #	A9013
Address	1601 Dixon Landing Road	Source #	A-2 and A-3 LFG Flares
Reported by	Rachelle Huber	Phone #	408-586-2263
Indicated Excess	240 hours GCCS downtime per year	Fax #	N/A
Allowable Limit	Permit Condition #10164 Part 9(a)(b)	Averaging Time	1.40 hours
Start Time/Date	November 27, 2019 at approximately 18:39	Clear Time	November 27, 2019 at 20:03
Monitor/device type(s)	☐ ▶CEM ☐ ▶GLM ☐ ▶Parametric ☐ ▶PRD ☐ ▶Non-monitor		
Monitor description(s)			

Parameter(s) exceeded or not functioning due to inoperation

☐	▶NO_x	☐	▶SO_2	☐	▶CO	☐	▶CO_2	☐	▶H_2S	☐	▶TRS	☐	▶NH_3
☐	▶O_2	☐	▶H_2O	☐	▶Opacity	☐	▶Lead	☐	▶Gauge Pressure			X	▶Flow
☐	▶Hydrocarbon Breakthrough (VOC)					X	▶Temperature	☐	▶Wind Speed				
☐	▶Wind Direction					☐	▶Steam	X	▶Other (describe)				

Unit(s) of Measurement

☐	▶ppm	☐	▶ppb	☐	▶min/hr > 20%	☐	▶inches H_2O	☐	▶mmHg
☐	▶psig	☐	▶pH	X	▶^{0}Fahrenheit	X	▶Other (describe) scfm		

Event Description:

The Newby Island Landfill is submitting this RCA form to the BAAQMD as a 10-Day Title V Report follow-up notification to Breakdown Relief Request per Title V Permit Standard Conditions Section I.F (Monitoring Reports). The knock-out pot (KOP) at the Newby Island flare station reached capacity and caused the A-2 and A-3 Flares to shut down on November 27, 2019, at approximately 18:39. Upon discovery, operations and maintenance (O&M) personnel were dispatched and both flares were restarted at approximately 20:03. O&M personnel conducted inspection and maintenance at both flares prior to restart and no additional issues were discovered. A verbal report was filed at the afterhours BAAQMD hotline at (415) 749-4666 on the November 27, 2019 at 20:06. As the event has since been resolved, this request for breakdown relief is being submitted out of an abundance of caution. All equipment is currently operating in compliance of permitted requirements. A subsequent follow-up notification will be completed within 30 days of this submittal. At no point was the facility in a state of non-compliance. Regulations reviewed: BAAQMD 8-34-301.1 and BAAQMD 1-523.3.

District Use Only		
Received by	Date	Time

General Instructions

- ✓ 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@baaqmd.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 immediately upon 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.

Attachment B
Flare Temperature and Flow Records

DAQSTANDARD	R9.03.06
Data Viewer	R9.03.06
Device Type	DX1000
Serial No.	S5P108205
File Message	Republic Services Newby Island Landfill.

		Ch.	CH001		CH002		CH005		CH006	
		Tag	FL-100 GAS FLOW		FL-100 TEMPERATURE		FL-150 GAS FLOW		FL-150 TEMPERATURE	
		Tag No.								
		Unit	SCFM		DEG F		SCFM		DEG F	
Date	Time	sec	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
2019/11/27	16:36:00	0.000	2728	2889	1697	1703	1631	1743	1591	1607
2019/11/27	16:38:00	0.000	2705	2865	1690	1698	1638	1710	1592	1613
2019/11/27	16:40:00	0.000	2710	2922	1686	1690	1631	1707	1591	1612
2019/11/27	16:42:00	0.000	2725	2887	1686	1688	1613	1723	1602	1617
2019/11/27	16:44:00	0.000	2688	2884	1686	1689	1627	1705	1595	1603
2019/11/27	16:46:00	0.000	2714	2880	1688	1694	1626	1713	1595	1609
2019/11/27	16:48:00	0.000	2718	2935	1694	1703	1644	1722	1606	1614
2019/11/27	16:50:00	0.000	2747	2894	1690	1703	1629	1709	1593	1606
2019/11/27	16:52:00	0.000	2717	2883	1681	1690	1631	1718	1593	1614
2019/11/27	16:54:00	0.000	2712	2901	1681	1689	1621	1709	1597	1617
2019/11/27	16:56:00	0.000	2736	2895	1689	1697	1622	1727	1590	1605
2019/11/27	16:58:00	0.000	2738	2877	1697	1701	1640	1707	1604	1615
2019/11/27	17:00:00	0.000	2709	2886	1690	1698	1622	1742	1600	1604
2019/11/27	17:02:00	0.000	2714	2930	1687	1690	1604	1720	1595	1601
2019/11/27	17:04:00	0.000	2703	2900	1686	1689	1614	1741	1597	1615
2019/11/27	17:06:00	0.000	2712	2898	1686	1688	1610	1747	1597	1618
2019/11/27	17:08:00	0.000	2699	2903	1686	1693	1616	1741	1585	1598
2019/11/27	17:10:00	0.000	2722	2911	1693	1699	1617	1740	1597	1614
2019/11/27	17:12:00	0.000	2730	2912	1696	1699	1603	1776	1595	1615
2019/11/27	17:14:00	0.000	2727	2891	1690	1696	1620	1750	1589	1605
2019/11/27	17:16:00	0.000	2715	2917	1690	1692	1620	1715	1603	1614
2019/11/27	17:18:00	0.000	2689	2855	1684	1691	1624	1713	1595	1604
2019/11/27	17:20:00	0.000	2724	2884	1684	1690	1628	1717	1595	1620
2019/11/27	17:22:00	0.000	2739	2881	1690	1691	1635	1746	1593	1610
2019/11/27	17:24:00	0.000	2718	2892	1688	1691	1631	1715	1601	1611

2019/11/27	17:26:00	0.000	2728	2896	1688	1691	1614	1740	1587	1612
2019/11/27	17:28:00	0.000	2713	2881	1686	1690	1636	1727	1588	1605
2019/11/27	17:30:00	0.000	2720	2892	1690	1697	1625	1723	1602	1607
2019/11/27	17:32:00	0.000	2691	2880	1692	1696	1629	1718	1594	1605
2019/11/27	17:34:00	0.000	2736	2887	1692	1695	1631	1708	1595	1607
2019/11/27	17:36:00	0.000	2725	2911	1695	1698	1632	1711	1607	1616
2019/11/27	17:38:00	0.000	2718	2936	1690	1695	1636	1718	1606	1611
2019/11/27	17:40:00	0.000	2734	2888	1684	1690	1635	1739	1586	1607
2019/11/27	17:42:00	0.000	2696	2885	1684	1686	1618	1721	1588	1616
2019/11/27	17:44:00	0.000	2708	2890	1682	1690	1620	1737	1591	1610
2019/11/27	17:46:00	0.000	2720	2898	1690	1693	1605	1758	1592	1617
2019/11/27	17:48:00	0.000	2706	2888	1693	1700	1608	1749	1588	1609
2019/11/27	17:50:00	0.000	2711	2891	1691	1700	1583	1756	1596	1618
2019/11/27	17:52:00	0.000	2704	2873	1686	1691	1611	1760	1593	1612
2019/11/27	17:54:00	0.000	2730	2884	1686	1688	1613	1731	1591	1615
2019/11/27	17:56:00	0.000	2750	2918	1684	1686	1607	1717	1591	1600
2019/11/27	17:58:00	0.000	2740	2923	1683	1688	1612	1736	1598	1619
2019/11/27	18:00:00	0.000	2732	2884	1687	1691	1629	1729	1597	1619
2019/11/27	18:02:00	0.000	2740	2896	1691	1694	1630	1717	1591	1603
2019/11/27	18:04:00	0.000	2730	2893	1689	1693	1616	1733	1603	1620
2019/11/27	18:06:00	0.000	2704	2882	1692	1694	1635	1707	1583	1603
2019/11/27	18:08:00	0.000	2714	2895	1686	1692	1615	1713	1588	1625
2019/11/27	18:10:00	0.000	2739	2886	1686	1689	1650	1714	1588	1624
2019/11/27	18:12:00	0.000	2750	2912	1684	1688	1648	1723	1587	1622
2019/11/27	18:14:00	0.000	2746	2910	1685	1690	1643	1715	1601	1622
2019/11/27	18:16:00	0.000	2756	2953	1687	1693	1671	1722	1587	1601
2019/11/27	18:18:00	0.000	2730	2933	1690	1693	1662	1716	1596	1616
2019/11/27	18:20:00	0.000	2752	2919	1688	1692	1658	1722	1591	1612
2019/11/27	18:22:00	0.000	2766	2919	1691	1696	1650	1718	1590	1618
2019/11/27	18:24:00	0.000	2759	2953	1694	1696	1650	1719	1597	1619
2019/11/27	18:26:00	0.000	2775	2932	1696	1700	1665	1725	1588	1598
2019/11/27	18:28:00	0.000	2737	2954	1674	1700	1657	1724	1590	1618
2019/11/27	18:30:00	0.000	2711	2941	1669	1695	1638	1732	1588	1619
2019/11/27	18:32:00	0.000	2761	2933	1695	1721	1658	1724	1587	1611
2019/11/27	18:34:00	0.000	2760	2941	1681	1718	1651	1732	1609	1615
2019/11/27	18:36:00	0.000	2692	2927	1665	1681	1637	1741	1582	1609
2019/11/27	18:38:00	0.000	2717	2917	1665	1685	1665	1732	1588	1620

2019/11/27	18:40:00	0.000	2746	2899	1685	1700	1640	1736	1592	1613
2019/11/27	18:42:00	0.000	2745	2934	1699	1702	1646	1731	1596	1611
2019/11/27	18:44:00	0.000	1	2903	1576	1703	3	1742	1380	1617
2019/11/27	18:46:00	0.000	1	16	1157	1576	3	7	991	1380
2019/11/27	18:48:00	0.000	1	15	901	1157	3	6	774	991
2019/11/27	18:50:00	0.000	1	15	733	901	3	7	653	774
2019/11/27	18:52:00	0.000	1	15	616	733	3	6	565	653
2019/11/27	18:54:00	0.000	1	15	527	616	3	6	490	565
2019/11/27	18:56:00	0.000	1	14	456	527	3	7	425	490
2019/11/27	18:58:00	0.000	1	14	401	456	3	7	369	425
2019/11/27	19:00:00	0.000	1	14	356	401	3	7	323	369
2019/11/27	19:02:00	0.000	1	14	318	356	3	7	284	323
2019/11/27	19:04:00	0.000	1	14	289	318	3	7	253	284
2019/11/27	19:06:00	0.000	1	14	267	289	3	6	227	253
2019/11/27	19:08:00	0.000	1	14	248	267	3	6	205	227
2019/11/27	19:10:00	0.000	1	14	233	248	3	7	186	205
2019/11/27	19:12:00	0.000	1	14	219	233	3	7	171	186
2019/11/27	19:14:00	0.000	1	14	208	219	3	7	157	171
2019/11/27	19:16:00	0.000	1	14	198	208	3	7	146	157
2019/11/27	19:18:00	0.000	1	14	190	198	3	7	136	146
2019/11/27	19:20:00	0.000	1	14	184	190	3	7	127	136
2019/11/27	19:22:00	0.000	1	14	177	184	3	7	120	127
2019/11/27	19:24:00	0.000	1	15	177	256	2	6	113	120
2019/11/27	19:26:00	0.000	1	14	223	232	2	5	108	113
2019/11/27	19:28:00	0.000	1	15	220	226	2	6	103	108
2019/11/27	19:30:00	0.000	1	15	208	220	2	6	99	103
2019/11/27	19:32:00	0.000	1	15	202	208	2	5	95	99
2019/11/27	19:34:00	0.000	1	15	197	202	2	6	91	95
2019/11/27	19:36:00	0.000	1	15	194	197	2	6	89	91
2019/11/27	19:38:00	0.000	1	15	191	194	2	6	86	89
2019/11/27	19:40:00	0.000	1	15	188	191	2	5	84	86
2019/11/27	19:42:00	0.000	1	15	185	188	2	5	82	84
2019/11/27	19:44:00	0.000	1	14	182	185	2	6	80	82
2019/11/27	19:46:00	0.000	1	15	181	182	2	6	78	80
2019/11/27	19:48:00	0.000	1	15	179	181	2	6	77	78
2019/11/27	19:50:00	0.000	1	15	178	179	2	6	75	77
2019/11/27	19:52:00	0.000	1	15	177	178	2	6	74	75

2019/11/27	19:54:00	0.000	1	15	174	177	2	6	73	74
2019/11/27	19:56:00	0.000	1	15	173	174	2	6	71	73
2019/11/27	19:58:00	0.000	1	15	173	272	2	6	70	71
2019/11/27	20:00:00	0.000	1	15	221	224	2	6	70	70
2019/11/27	20:02:00	0.000	1	15	219	221	2	6	69	70
2019/11/27	20:04:00	0.000	1	15	218	219	2	6	68	69
2019/11/27	20:06:00	0.000	1	15	218	222	2	6	67	68
2019/11/27	20:08:00	0.000	1	17	221	375	2	6	67	67
2019/11/27	20:10:00	0.000	1	19	244	248	2	6	66	67
2019/11/27	20:12:00	0.000	1	29	243	247	2	6	65	66
2019/11/27	20:14:00	0.000	1	16	198	296	2	6	65	65
2019/11/27	20:16:00	0.000	1	16	189	198	2	7	64	65
2019/11/27	20:18:00	0.000	1	4410	189	636	2	7	63	64
2019/11/27	20:20:00	0.000	2845	3419	636	1956	2	7	63	63
2019/11/27	20:22:00	0.000	2697	2957	1630	1914	2	8	62	63
2019/11/27	20:24:00	0.000	2604	2828	1636	1854	2	7	61	62
2019/11/27	20:26:00	0.000	2508	3234	1725	1839	2	1998	60	293
2019/11/27	20:28:00	0.000	2979	3169	1726	1781	1885	1995	293	1694
2019/11/27	20:30:00	0.000	2985	3182	1660	1789	1881	1940	1589	1694
2019/11/27	20:32:00	0.000	2961	3173	1608	1877	1840	1919	1579	1589
2019/11/27	20:34:00	0.000	2944	3136	1657	1829	1819	1877	1577	1611
2019/11/27	20:36:00	0.000	2969	3138	1679	1738	1820	1860	1608	1637
2019/11/27	20:38:00	0.000	2918	3107	1638	1679	1792	1854	1585	1608
2019/11/27	20:40:00	0.000	2903	3145	1638	1682	1775	1847	1596	1620
2019/11/27	20:42:00	0.000	2913	3169	1682	1738	1794	1838	1592	1605
2019/11/27	20:44:00	0.000	2890	3087	1679	1831	1795	1835	1599	1616
2019/11/27	20:46:00	0.000	2906	3074	1664	1679	1785	1843	1580	1600
2019/11/27	20:48:00	0.000	2897	3088	1664	1707	1789	1837	1583	1631
2019/11/27	20:50:00	0.000	2875	3098	1707	1717	1780	1840	1590	1635
2019/11/27	20:52:00	0.000	2881	3084	1665	1709	1767	1844	1587	1614
2019/11/27	20:54:00	0.000	2904	3074	1656	1665	1746	1932	1605	1616
2019/11/27	20:56:00	0.000	2916	3126	1658	1693	1720	1955	1590	1605
2019/11/27	20:58:00	0.000	2901	3079	1693	1707	1743	1864	1595	1609
2019/11/27	21:00:00	0.000	2870	3098	1683	1707	1723	1851	1607	1610
2019/11/27	21:02:00	0.000	2889	3095	1658	1683	1729	1878	1587	1610
2019/11/27	21:04:00	0.000	2922	3090	1658	1662	1754	1837	1588	1615
2019/11/27	21:06:00	0.000	2905	3069	1661	1687	1775	1837	1608	1617

2019/11/27	21:08:00	0.000	2921	3060	1686	1692	1755	1833	1586	1609
2019/11/27	21:10:00	0.000	2925	3061	1669	1686	1789	1830	1589	1613
2019/11/27	21:12:00	0.000	2915	3096	1665	1669	1776	1830	1585	1615
2019/11/27	21:14:00	0.000	2864	3120	1662	1667	1747	1836	1585	1620
2019/11/27	21:16:00	0.000	2910	3095	1662	1670	1756	1825	1602	1621
2019/11/27	21:18:00	0.000	2935	3117	1670	1681	1781	1836	1591	1602
2019/11/27	21:20:00	0.000	2914	3086	1680	1687	1772	1825	1602	1614
2019/11/27	21:22:00	0.000	2902	3088	1666	1686	1782	1833	1588	1606
2019/11/27	21:24:00	0.000	2919	3142	1656	1666	1777	1825	1593	1614
2019/11/27	21:26:00	0.000	2911	3094	1657	1664	1769	1836	1605	1621
2019/11/27	21:28:00	0.000	2905	3099	1664	1678	1767	1829	1587	1605
2019/11/27	21:30:00	0.000	2900	3135	1678	1683	1765	1835	1597	1611
2019/11/27	21:32:00	0.000	2914	3119	1675	1683	1777	1850	1595	1613
2019/11/27	21:34:00	0.000	2903	3115	1658	1675	1777	1829	1593	1615
2019/11/27	21:36:00	0.000	2926	3105	1655	1661	1784	1838	1606	1615
2019/11/27	21:38:00	0.000	2914	3107	1661	1680	1779	1837	1600	1606
2019/11/27	21:40:00	0.000	2908	3087	1680	1686	1781	1838	1600	1604
2019/11/27	21:42:00	0.000	2936	3081	1665	1684	1777	1835	1598	1603
2019/11/27	21:44:00	0.000	2905	3077	1654	1665	1768	1832	1595	1600
2019/11/27	21:46:00	0.000	2912	3098	1654	1677	1774	1850	1596	1601
2019/11/27	21:48:00	0.000	2910	3159	1677	1690	1776	1838	1601	1622
2019/11/27	21:50:00	0.000	2911	3092	1653	1686	1782	1844	1593	1610
2019/11/27	21:52:00	0.000	2935	3106	1651	1657	1766	1835	1593	1612
2019/11/27	21:54:00	0.000	2921	3085	1657	1680	1765	1837	1593	1613
2019/11/27	21:56:00	0.000	2947	3114	1679	1687	1775	1852	1595	1611
2019/11/27	21:58:00	0.000	2925	3130	1651	1688	1770	1828	1590	1604
2019/11/27	22:00:00	0.000	2924	3092	1646	1652	1764	1827	1594	1617
2019/11/27	22:02:00	0.000	2929	3122	1652	1674	1764	1840	1588	1612
2019/11/27	22:04:00	0.000	2920	3087	1674	1689	1775	1831	1591	1612

Attachment C
O&M Inspection Records

TETRA TECH

Newby Island Landfill
Weekly Flare Checksheet

Name	Mike Yes	Date	11/25/2019	Time	14:58:00

CH4:	48.5	CO2:	36.2	O2:	2.1	BAL:	13.2	System Pressure:	-57

ZULE/FL-100 flare

Gas Flow	2947	Temperature:	1708	Totalizer:	56868377	Air flow:	17,565	Flare set point:	1575

Thermocouples		Burner Tips					
A:	1541	A:	74	E:	83	Air Blower Output (%)	52
B:	1613	B:	75	F:	79	Air blower hours:	23669
C:	1565	C:	106	G:	78		
Pilot:	456	D:	76				

FL-150

Flow:	1712	Temperature:	1616	Totalizer:	33375235	Flare Set point:	1600

Thermocouples	
A:	1365
B:	1589
C:	1608

Flares in auto?	yes	Auto valves checked	yes				
Total SCFM	4659	Drain	yes				
Data downloaded	yes	KOP D.P.:	0.5				
Call box tested	yes	Flame arrestor D.P.: "H2O	FL-100:	0.5	FL-150:	1.2	
Check KOP sight glas	yes	FL 100 inlet ("H2O)	1				

	Blowers in operation?	Hours	Inlet/A temp	Outlet/B temp	Vibration in/s
103	Yes	21861	74	74	
104	No	0	0	0	
105	Yes	22694	91	74	

Blower set point	-60	System Vac (actual "H2O)	-59	Output (%)	88

Compressors

	Temperature	Hours
#1	183	21467
#2	63	46423

Units in auto?	yes	Compressor lubricated?	yes
Tanks drained	yes	Compressor belts worn?	yes
Filters clean	yes	Belts at proper tension?	yes
PSI	102	Last date of service:	

Additional comments:
Compressor 2 off due to low sump pressure

American Environmental Group, Ltd. - Daily Site Summary

Client: Newby Island | **Date:** 11/27/19 (Wed)

Task: Routine Services | **Job Number:** 197-61816002

Employee Name	Crew Member	*Vehicle*	*Hotel*	*Per Diem*	Title	ST HR	ST Rate	OT HR	OT Rate (x 1.5)	Total Amount
O&M Technical Personnel										
Michael Yes		1.0	-	-		8.0	$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
Construction Personnel										
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
Subtotals:		-	-	-		-		-		**$ -**

Site and Weather Conditions

50 degrees F / Wind: 8 mph SW / Baro Pressure: 29.53" hg / Cloudy

DAILY REPORT

Began day @ 8:00

COMPLETED DAILY SAFETY CHECKS AND INSPECTIONS

CHECK IN WITH OFFICE

Daily CS18 sump inspection; iForms

MW pump inspections

Monthly Air Blow-off Valve Check

Inspect wells near chipping area by request of Rachelle, tightened all ports

Truck Maintenance (car wash, fill tires with air)

Catch up on expense reports (OFFICE)

Upload, Review and Distribute Data

Finish Day @ 16:00

TETRA TECH

Newby Island Landfill
Weekly Flare Checksheet

Name	Mike Yes	Date	12/2/2019	Time	13:57:00

CH4:	46.8	CO2:	33.9	O2:	2.9	BAL:	16.4	System Pressure:	-58

ZULE/FL-100 flare

Gas Flow	2942	Temperature:	1664	Totalizer:	59776367	Air flow:	17,516	Flare set point:	1575

Thermocouples		Burner Tips					
A:	1531	A:	72	E:	78	Air Blower Output (%)	52
B:	1611	B:	73	F:	75	Air blower hours:	23834
C:	1573	C:	98	G:	74		
Pilot:	501	D:	73				

FL-150

Flow:	1767	Temperature:	1608	Totalizer:	35114161	Flare Set point:	1600

Thermocouples	
A:	1353
B:	1579
C:	1592

Flares in auto?	yes	Auto valves checked	yes				
Total SCFM	4709	Drain	yes				
Data downloaded	yes	KOP D.P.:	0.5				
Call box tested	yes	Flame arrestor D.P.: "H2O	FL-100:	0.5	FL-150:	1.1	
Check KOP sight glas	yes	FL 100 inlet ("H2O)	1				

	Blowers in operation?		Hours	Inlet/A temp		Outlet/B temp	Vibration in/s
103	Yes		22026	71		73	
104	No		0	0		0	
105	Yes		22859	97		68	
Blower set point	-60	System Vac (actual "H2O)	-58	Output (%)	88		

Compressors

	Temperature	Hours
#1	184	21633
#2	69	46423

Units in auto?	yes	Compressor lubricated?	yes
Tanks drained	yes	Compressor belts worn?	yes
Filters clean	yes	Belts at proper tension?	yes
PSI	100	Last date of service:	

Additional comments:
Compressor 2 shutdown for low sump pressure

American Environmental Group, Ltd. - Daily Site Summary

Client: Newby Island | **Date:** 12/02/19 (Mon)

Task: Routine Services | **Job Number:** 197-61816002

Employee Name	Crew Member	*Vehicle*	*Hotel*	*Per Diem*	Title	ST HR	ST Rate	OT HR	OT Rate (x 1.5)	Total Amount
O&M Technical Personnel										
Michael Yes		1.0	-	-		8.0	$ -	2.0	$ -	$ -
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
Construction Personnel										
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
		-	-	-			$ -		$ -	$ -
Subtotals:		-	-	-		-		-		**$ -**

Site and Weather Conditions

60 degrees F / Wind: 10 mph SE / Baro Pressure: 30.04" hg / Cloudy

DAILY REPORT

Began day @ 8:00

Weekly O&M Meeting

COMPLETED DAILY SAFETY CHECKS AND INSPECTIONS

CHECK IN WITH OFFICE

Drain KOP as it was a quarter full

Upload and send out Flare Data

Complete all weekly items (FM pressure gauge readings, sump inspections, and flare inspection)
First Cal @ 13:52; initial inlet reading & GHG Readings

Wellfield tuning and monitoring

CS14 still watered in as sample port spewing out when opened

Final Cal @ 16:36; final inlet reading

Rinse Mud off truck

Wells NILEW701 and NILEW690 out for high temp

Wells NILEW481 & 455 still out for positive pressure

Upload, review, and distribute data

Finish day @ 18:00

Attachment D
Estimated Landfill Fugitive Emissions

RCA 07Q20-07Q21 Calculated Emissions over Event Duration (1.4 hours)

Emission Unit	Description	LFG Fugitive Flow (scfm)	VOC (lb)	HAP (T) (lb)	CH_4 (lb)
1	Landfill	239	160	160	53

[1] LFG Fugitive Flow based on LandGEM v3.02 projected 2019 average flow.

[2] During a GCCS downtime event, all valves close immediately upon shutdown and the system remains under vacuum, therefore site-specifc fugitive emissions are calculated for the event duration.

[3] RCA 07Q20-07Q21 GCCS downtime event duration based on shutdown on November 27, 2019 at approximately 18:39 and startup on November 27, 2019 at approximately 20:03. Total event duration was approximately 1.4 hours.

[4] Calculations are based on site-specific values during the event. Results from the February 21, 2019 Annual Source Test were used on a supplemental basis. Remaining values are based on AP42 5th Ed., "Compilation of Air Pollutant Emissions Factors, Vol. 1: Stationary Point and Area Sources," Table 2.4-1.

Attachment E
Shutdown, Startup, and Malfunction Forms

Site Name: Newby Island
City: Milpitas, CA
Startup/Shutdown/Malfunction Report Form

Section 1 - All Events

List all effected piece(s) of equipment:

	Type of Event	Military Time Date/Time Start	Military Time Date/Time End	Duration (hours)	Event Code (see back of form)	Notes
	Startup					
x	Shutdown	11/27/19 18:44	11/27/19 20:28	1.73	4	Separator High level
	Malfunction			0:00		

*Standard Operating Procedure (SOP) for Flare Startups (Manual & Automatic) and Shutdowns are provided in SSM Plan

If SOP in SSM Plan was not followed, **notify personnel on contact list immediately

Section 2 - Malfunction Events Only

		☑ *Check one of the following for each step:*	
Step	**Corrective Action Procedures for All Malfunctions**	Procedure completed	Procedure Not Applicable
1.	Determine if landfill gas is being released to the air (can you smell landfill gas, or measure/detect gas flow?).		
2.	If landfill gas is being released to the air, notify personnel on "Contact List".		
3.	Determine if the malfunction is causing an unsafe operating condition (air entering landfill or piping, smoking, vibration, or other problem), which may harm people, the environment or the landfill gas control equipment.		
4.	If unsafe operating condition exists, or landfill gas is being released to the air, **stop** (if possible) **landfill gas flow.**		
5.	If Control device or other system component is shutdown due to Step 4, follow Shutdown SOP and Complete Section 1 - "Shutdown".		
6.	Determine if other personnel/resource (qualified technician, electrician, consultant or other) are needed for malfunction diagnosis.		
7.	If additional personnel needed, notify qualified personnel: •Record Contact Name: •Record Contact Date: •Record Contact Time: •Contact site representative with information recorded here		
8.	Start malfunction diagnosis.		
9.	Determine if other resources are needed to fix the malfunction (qualified technician, electrician, contractor, on-site resources, manufacturer's representative, or other).		
10.	If additional resources needed, contact qualified resource: •Record Contact Name: •Record Contact Date: •Record Contact Time: •Contact site representative with information recorded here		
11.	Fix the malfunction.		
12.	Once the malfunction is fixed, re-start the system per SOP if it had been shut down, and record start-up times and dates on this form.		
13.	Record date that malfunction occurred, date that malfunction was repaired, and total time that system was out of service in boxes in Section 1 of this form.		
14.	Sign this form, copy it, and place it in the Start-up, Shutdown, Malfunction file.		
15.	If the procedures listed above were not followed, contact the site engineer immediately.		

Date Form Filled Out: 12/4/2019 **Signature:** Max Polkabla

EVENT CODES

For Start-ups and Shutdowns

***Startup**: The setting in operation of an affected source or portion of an affected source for any purpose.*
***Shutdown**: The cessation of operation of an affected source or portion of any source for any purpose.*

Code	Event
1	Maintenance
2	Suspected Collection System Malfunction
3	Suspected Control Device Malfunction
4	Suspected Continuous Monitoring System Malfunction (Temperature/Flow/Other)
5	Training
6	Gas System Construction/Expansion
99	Other (Describe) _____

For Malfunctions

Malfunction: Any sudden, infrequent and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Code	Event
10	Automatic shutdown of control device by designed protective systems - Electrical malfunction
11	Autodialer Callout
12	Shutdown alarms that result in the device not shutting down
13	Unalarmed shutdown
14	Control Device Smoking
15	Inspection identified malfunction
16	Loss of power - utility down
17	Loss of power - unknown
18	Damaged Well, Header or Lateral Piping
19	Leaks at wellheads, valves, flanges, test ports, seals, couplings, etc.
20	Condensate Knock-out Problems
21	Collection Piping Blockages
22	Problems due to Settlement
23	Loss of phase
24	Blower overload condition
25	Blower bearing failure
26	Broken belts (if belt-drive) or broken coupling (if direct-drive) in blower
27	Continuous Monitoring System Malfunction - Thermocouple
28	Continuous Monitoring System Malfunction - UV Scanner
29	Continuous Monitoring System Malfunction - Flow Monitor
30	Continuous Monitoring System Malfunction - Flow Recorder
31	Continuous Monitoring System Malfunction - Temperature Recorder
32	Act of God (i.e., lightening, wind, etc.)
99	Other (Describe) _____

Site Name: Newby Island
City: Milpitas, CA
Startup/Shutdown/Malfunction Report Form

Section 1 - All Events

List all effected piece(s) of equipment:

	Type of Event	Military Time Date/Time Start	Military Time Date/Time End	Duration (hours)	Event Code (see back of form)	Notes
	Startup					
x	Shutdown	11/27/19 18:44	11/27/19 20:20	1.60	4	Separator High Level
	Malfunction			0:00		

*Standard Operating Procedure (SOP) for Flare Startups (Manual & Automatic) and Shutdowns are provided in SSM Plan

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Section 2 - Malfunction Events Only

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Step	**Corrective Action Procedures for All Malfunctions**	Procedure completed	Procedure Not Applicable
1.	Determine if landfill gas is being released to the air (can you smell landfill gas, or measure/detect gas flow?).		
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4.	If unsafe operating condition exists, or landfill gas is being released to the air, **stop** (if possible) **landfill gas flow.**		
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8.	Start malfunction diagnosis.		
9.	Determine if other resources are needed to fix the malfunction (qualified technician, electrician, contractor, on-site resources, manufacturer's representative, or other).		
10.	If additional resources needed, contact qualified resource: •Record Contact Name: •Record Contact Date: •Record Contact Time: •Contact site representative with information recorded here		
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13.	Record date that malfunction occurred, date that malfunction was repaired, and total time that system was out of service in boxes in Section 1 of this form.		
14.	Sign this form, copy it, and place it in the Start-up, Shutdown, Malfunction file.		
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17	Loss of power - unknown
18	Damaged Well, Header or Lateral Piping
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21	Collection Piping Blockages
22	Problems due to Settlement
23	Loss of phase
24	Blower overload condition
25	Blower bearing failure
26	Broken belts (if belt-drive) or broken coupling (if direct-drive) in blower
27	Continuous Monitoring System Malfunction - Thermocouple
28	Continuous Monitoring System Malfunction - UV Scanner
29	Continuous Monitoring System Malfunction - Flow Monitor
30	Continuous Monitoring System Malfunction - Flow Recorder
31	Continuous Monitoring System Malfunction - Temperature Recorder
32	Act of God (i.e., lightening, wind, etc.)
99	Other (Describe) _____

REPUBLIC SERVICES

Newby Island Landfill 1601 Dixon Landing Road, Milpitas, CA 95035
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March 13, 2020

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

Re: 10-Day Response to Notice of Violation Number A59433
Combined 10-Day and 30-Day Title V Reports
Newby Island Sanitary Landfill and Recyclery, Milpitas, California
Facility Number A9013

Dear Mr. Gove:

On behalf of the Newby Island Sanitary Landfill and Recyclery (Newby Island) Covered Aerated Static Pile (CASP) operation, International Disposal Corporation of California (IDCC) is submitting this 10-Day Response to Notice of Violation (NOV) Number A59433, which was issued by Bay Area Air Quality Management District (BAAQMD) Inspector, Mr. Daniel Anderson, to Newby Island on March 5, 2020. This letter also satisfies the regulatory requirements for the 10-day and 30-Day Title V Reports required by Title V Permit Condition Section I.F (Monitoring Reports). On June 19, 2017, IDCC submitted an Application for Title V Permit Renewal to the BAAQMD, and anticipates the new Title V Permit should incorporate the CASP Authority to Construct (ATC) Application Number (A/N) 28472 Condition Number 26632 requirements. Even though IDCC is awaiting the renewed Newby Island Title V Permit issuance, IDCC is conservatively noting that this letter covers Title V Permit Condition Section I.F.

NOV Number A59433

NOV Number A59433 was issued by BAAQMD inspector Mr. Daniel Anderson for an alleged violation of BAAQMD Regulation 2, Rule 1, Section 307 (Failure to Meet Permit Condition) and CASP ATC Condition Number 26632, Section 18. Per the NOV, IDCC allegedly failed to comply with CASP ATC Condition Number 26632 Section 18 requirements to maintain proper drainage of the compost pad at the CASP operation. The NOV was issued for an inspection previously completed by Mr. Anderson on February 19, 2020.

Condition Number 26632, Section 18

During the February 19, 2020 inspection conducted by the BAAQMD, Mr. Anderson noted liquids accumulation on the compost pad in the grinding and receiving area, which the BAAQMD determined as an alleged source of odors. During the inspection, no liquids accumulation was detected in the curing pile, active pile, or biofilter areas.

Per Condition Number 26632, Section 18:

"The owner/operator shall implement good housekeeping practices, including but not limited to sweeping or clearing debris and waste materials from the active composting areas, biofilter areas, and curing pile areas as needed. The owner/operator shall ensure that there are no pools of standing water or leachate run-off from S-1003, shall maintain proper drainage of the compost pad, and shall handle and dispose of liquids that have come in contact with S-1003 or A-1005 in a manner that ensures that these liquids do not become a source of odors."

Immediately upon discovery of the liquids accumulation, IDCC personnel investigated the CASP operations area. On February 19, 2020, IDCC cleaned the compost pad and utilized materials to absorb any liquids. Additionally, IDCC personnel investigated potential sources of odor occurring at or near the CASP operations and determined odors detected by BAAQMD personnel were due to freshly deposited foodwaste that was being processed at the time of inspection. Once the fresh foodwaste was processed and placed into active piles, no further odors were detected. IDCC personnel did not detect any odors emitted from the liquids accumulation. On February 20, 2020, BAAQMD personnel returned to the site to inspect the compost pads at the CASP and noted that the ponding had been remediated and the odors previously detected did not persist.

IDCC ensures moisture conditioning requirements are conducted pursuant to ATC Condition Number 26632, Section 5 (CASP Feedstock Moisture Content), to ensure proper moisture of the materials placed into each compost pile. IDCC is vigilant about following Best Management Practices (BMPs) and ensuring ponded water is not left in any area of the CASP operationfor more than 24 hours. The site ensures that liquids are removed and directed to the stormwater drain located along the southern portion of the CASP and drained to the stormwater pond daily.

Conclusion

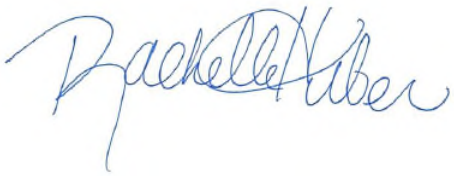
Given corrective action was initiated immediately upon discovery of the alleged violation and the BAAQMD returned and confirmed no additional issues were detected, IDCC respectfully requests that NOV A59433 be rescinded.

IDCC is vigilant in maintaining proper housekeeping practices and will continue to ensure the Newby Island CASP is operated in compliance with all applicable regulations, ATC conditions, and per the BMPs.

If you have any questions, please do not hesitate to contact Meghan Caesar at (925) 241-1074 or meghan.caesar@tetratech.com or Rachelle Huber at (408) 586-2263 or rhuber2@republicservices.com.

Sincerely,

Newby Island Landfill



Rachelle Huber
Environmental Manager

cc: Daniel Anderson, BAAQMD
Suzan Pankenier, Tetra Tech
Meghan Caesar, Tetra Tech
Sami Ayass, Tetra Tech

Enclosure: NOV Number A59433

NOV Number A59433

REPUBLIC SERVICES

Newby Island Landfill 1601 Dixon Landing Road, Milpitas, CA 95035
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March 27, 2020

Mr. Raymond Salalila
Air Quality Specialist
Compliance and Enforcement Division
Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, CA 94105

Re: Newby Island Sanitary Landfill and Recyclery, Facility Number A9013
REVISED Request for Limited Exemption (for Construction Activities) from Regulation 8, Rule 34 (Solid Waste Disposal Sites)
Section 117 (Gas Collection and System Components) and
Section 118 (Limited Exemption, Construction Activities)

Dear Mr. Salalila:

In accordance with the recent electronic correspondence received from the Bay Area Air Quality Management District (BAAQMD) on March 9, 2020, International Disposal Corporation of California (IDCC) is submitting this revised letter on behalf of Newby Island Sanitary Landfill and Recyclery (Newby Island). The original request for limited exemption was submitted on February 18, 2020. This revised letter is being submitted to clarify the request of the limited exemption from the requirements of BAAQMD Regulation 8, Rule 34 (8-34) during wellfield construction activities at Newby Island. This notification is submitted pursuant to 8-34, Section 118, "Limited Exemptions for Construction Activities."

Section 8-34-117 provides for the limited exemption from 8-34-301.1, 301.2 and 305 when new wells are being connected to the gas collection and control system (GCCS). Specifically, it says: "*The requirements of Sections 8-34-301.1, 301.2, and 305 shall not apply to individual landfill gas collection system components that must be temporarily shut down in order to repair the components, to connect new landfill gas collection system components to the existing system…*"

Similarly, 8-34-118 provides for a limited exemption from 8-34.305 from "*The requirements of Sections 8-34-303 shall not apply to the working face of the landfill or to areas of the landfill surface where the landfill cover material has been removed and refuse has been exposed for the express purpose of installing, expanding, replacing, or repairing components of the landfill gas, leachate, or gas condensate collection and removal systems…*" Since 8-34-117 and 118 allow for the limited exemptions from 8-34.301.1, 301.2 and 305 we are seeking exemption from these Sections (8-34-117 and 118).

The construction work consisted of the staking and installation of four horizontal landfill gas (LFG) collectors and the decommissioning of one vertical LFG well. These GCCS improvement activities commenced on February 24, 2020 and were completed on March 20, 2020 pursuant to the anticipated construction schedule detailed in the original submittal.

This letter also includes the BAAQMD-required revised construction plan (work plan) for the completed work. The work plan contains information required pursuant to Regulation 8, Rule 34, Section 118.1 and includes:

- Description of actions being taken;
- Description of landfill areas affected;
- Description of LFG components affected;
- Map showing the affected areas and components as well as the approximate location of the new vertical collectors;
- Reason(s) requiring the action;
- Construction schedule; and
- Description of air quality mitigation measures planned.

No significant interruption of the current site LFG extraction and control operations occurred during the construction work, and IDCC and/or a construction quality assurance (CQA) contractor on behalf of IDCC monitored construction activities to ensure compliance. The construction crew mobilized to the site on February 24, 2020 and construction activities were completed by March 20, 2020. During this construction event, minor modifications to the GCCS piping and LFG collectors in the construction area were completed, including but not limited to, the installation of 4 new horizontal LFG collectors, the decommissioning of one vertical LFG well, installation of new piping, and temporarily taking LFG collectors offline in order to minimize impacts to GCCS operation in and around the construction area. All disconnection and reconnection times were recorded pursuant to BAAQMD Regulations 8-34-117.6 and 118.9. This is outlined in the attached Construction Plan.

As IDCC did not receive notification from the BAAQMD prior to February 24, 2020, we proceeded in accordance with the attached Plan and deemed approval of this submittal by the BAAQMD as consent to take necessary action to ensure compliance with the BAAQMD regulations, which may include taking additional collectors offline for an extended period of time pursuant to Regulation 8, Rule 34, Section 118. If you have any questions, please do not hesitate to contact us. Thank you for your consideration.

Sincerely,

Rachelle Huber
Environmental Manager
Newby Island

Enclosure: REVISED BAAQMD Regulation 8, Rule 34, Section 118 Construction (Work) Plan

cc: Tamiko Endow, BAAQMD
Daniel Anderson, BAAQMD
Meghan Caesar, Tetra Tech
Suzan Pankenier, Tetra Tech
Gavin Casson, Tetra Tech
Sami Ayass, Tetra Tech
Justin Ruhle, Tetra Tech

REVISED BAAQMD Rule 8-34-118 Construction Plan
Newby Island Sanitary Landfill and Recyclery
February 24, 2020 through March 20, 2020

Introduction

This Construction Work Plan is being submitted by the International Disposal Corporation of California (IDCC), for the Newby Island Sanitary Landfill and Recyclery (Newby Island) pursuant to the Bay Area Air Quality Management District (BAAQMD) Regulation 8, Rule 34, Section 118: Limited Exemptions for Construction Activities (118 Plan). To obtain an exemption from BAAQMD Regulation 8, Rule 34:

- Sections 117.1 through 117.6 and
- Section 118.

To obtain exemptions from the aforementioned sections of BAAQMD Regulation 8, Rule 34, the operator shall submit a construction plan in writing to the Air Pollution Control Officer (APCO) prior to beginning any construction activities. 8-34-117 provides for the limited exemption from 8-34-301.1, 301.2, and 305 when new wells are being connected to the gas collection and control system (GCCS). Specifically, it says: "*The requirements of Sections 8-34-301.1, 301.2, and 305 shall not apply to individual landfill gas collection system components that must be temporarily shut down in order to repair the components, to connect new landfill gas collection system components to the existing system…*"

Similarly, 8-34-118 provides for a limited exemption from 8-34-305 from "*The requirements of Sections 8-34- 303 shall not apply to the working face of the landfill or to areas of the landfill surface where the landfill cover material has been removed and refuse has been exposed for the express purpose of installing, expanding, replacing, or repairing components of the landfill gas, leachate, or gas condensate collection and removal systems…*" Since 8-34-117 and 118 allow for the limited exemptions from 8-34-301.1, 301.2, and 305, we are seeking exemption from these Sections (8-34-117 and 118).

Section 303 requires maintaining the concentration of organic compounds and methane below 500 parts per million by volume (ppmv) at all points on the landfill surface. Section 118 provides an exemption from the surface emission standard for *"...areas of the landfill surface where the landfill cover material has been removed and refuse has been exposed for the express purpose of installing, expanding, replacing, or repairing components of the landfill gas, leachate, or gas condensate collection and removal systems."*

Pursuant to Regulation 8, Rule 34, Section 118 (subsections 1.1 through 1.7), this work plan includes:

- Description of actions being taken;
- Description of landfill areas affected;
- Description of landfill gas (LFG) components affected;
- Map showing the affected areas and components;
- Reason(s) requiring the action;
- Construction schedule; and
- Description of air quality mitigation measures planned.

Additionally, this workplan has been revised to include Regulation 8, Rule 34, Section 117 (Subsections 1 through 6):

- List of GCCS components that were repaired to maintain compliance:
- New GCCS components required to maintain compliance;
- Other construction activities, where Sections 8-34-118.1 through 118.9 must be met;
- Number of LFG wells offline, not to exceed five or 10 percent of the GCCS;
- Confirmation that no wells were disconnected from a vacuum source for longer than 24 consecutive hours, unless the operator received prior written approval from the APCO; and
- Well disconnection times.

Section 118.1.1: Actions Being Taken

The construction work included the staking and installation of four horizontal LFG extraction wells, the decommissioning of one vertical LFG extraction well, and modifications to associated piping connections of the existing GCCS. Installation and decommissioning of LFG components were done to minimize the impact to the operation of the overall GCCS.

Sections 118.1.2 and 118.1.4: Affected Landfill Areas

The construction activities occurred in the areas as shown on the Construction Plan As-Built Map for Newby Island, included as an attachment to this Work Plan.

Section 118.1.3: Affected LFG Components

Construction was performed such that it had minimal impact on the routine continuous operation of the existing GCCS, pursuant to 8-34-301.1. IDCC and/or a construction quality assurance (CQA) contractor on behalf of IDCC monitored construction activities to ensure compliance, track construction activities, and record new LFG well installation data (dates and times that new LFG wells are brought online).

LFG wells within the radius of influence (ROI) of planned installations were temporarily disconnected on an as-needed basis, pursuant to Regulation 8, Rule 34, Section 117. Isolation valves installed within the existing GCCS piping network were used to minimize the number of LFG collectors offline during connection of the new LFG collectors to the existing GCCS. One well was decommissioned, eight LFG collection wells were taken offline, and two of the offline wells returned online. All wellfield startup, shutdown, and malfunction (SSM) events are recorded pursuant to Regulation 8, Rule 34, Section 501.

Section 118.1.5: Reasons for Actions

The proposed construction work is intended to:

- Improve the efficiency of the liquids management system;
- Install new horizontal LFG collectors;
- Increase LFG collection efficiency to further reduce the potential for subsurface migration and/or surface emissions;
- Address persistent integrated surface emissions monitoring (SEM) exceedances detected during the Fourth Quarter 2019 SEM event.
- The above action items provided an increase in LFG collection system coverage and GCCS efficiency and therefore will promote the facility's compliance with BAAQMD Regulation 8, Rule 34 Sections 301, 303, and 305 and Title 17 California Code of Regulations (CCR), Landfill Methane Rule (LMR) Sections 95464 and 95465, among other requirements.

Section 118.1.6: Construction Schedule

The construction period was between February 24, 2020 through March 20, 2020 and is summarized in the table below.

Table 1 – Amended Construction Schedule

Task	Duration
Mobilize crew, equipment, and materials to site.	2/18 – 2/24
Drilling, trenching, and excavation activities.	2/25 – 2/27
Header improvements for new well connections and installation of horizontals.	2/27 – 3/2
Clean-up and demobilize crew and materials. Decommissioning of one well.	3/2 – 3/9
Startup of horizontal collectors, subsequent tuning by Operations & Maintenance (O&M) personnel.	3/11 – 3/20

*Construction and excavation activities commenced on 2/25

Section 118.1.7: Air Quality Mitigation Measures

Emissions of raw LFG were minimized during these activities. IDCC confirmed minimal interruption of the overall site LFG extraction and control operations occurred during the work. Installation of the new LFG collectors was independent of ongoing operations of the existing GCCS. Additionally, the area of construction is known to not contain asbestos. Therefore, no further asbestos notification is required pursuant to BAAQMD Regulation 11, Rule 2.

Due to the minimal amount of excavation planned for this work, air quality impacts due to construction activities were minimal. Air quality mitigation was provided during the following work tasks:

- Drilling of vertical wells and trenching of horizontal collectors;
- Connection of piping to new horizontal and the existing GCCS piping network; and
- GCCS header improvements to accommodate new LFG wells.

During excavation through the waste and soil cover, air emissions were controlled by implementing the following measures:

- Minimizing the installation time for each component;
- Minimizing the quantity of open excavations at any one time, by drilling one LFG well at a time;
- Covering excavated refuse immediately, and relocating it to the active waste disposal area within 24 hours or as soon as possible based on site operations; and
- Not leaving excavations open overnight or for over eight hours.

During the construction activities, air emissions were controlled by implementing the following measures:

- Temporary capping or installing blind flanges on open pipes and LFG extraction well casings, which will remain sealed until permanently connected to a vacuum source;
- Using isolation valves, where possible, when making connections into the existing GCCS piping network;
- Minimizing the excavation depths and time;
- Minimizing the amount of open pipe or well casings during each installation; and
- Ensuring that the Republic Standard Operation Procedures (SOP) are followed and that all activities are performed in compliance with applicable regulations by stationing CQA personnel near the construction area to observe and record construction activities.

Section 117.1: Gas Collection System Components Repairs

During the construction that was completed on March 20, 2020, repairs of existing GCCS components did not take place during this construction event as they were not needed during the actions related this to construction.

Section 117.2: Gas Collection System New Components

The date and start-up time for each new LFG collector were recorded, pursuant to requirements for documenting individual horizontal collector start-up times in Regulation 8, Rule 34, Section 501.

During the construction that was completed on March 20, 2020 at Newby Island, the following wells were installed and were started up on March 11 and 13, 2020:

New Well IDs	Startup Time
NIHC17-5	3/11/20 15:27
NIHC17-6	3/11/20 15:32
NIHC17-7	3/11/20 15:39
NILHC243	3/13/20 12:10

A Combined Well Startup and Decommissioning Notification will be submitted to the BAAQMD pursuant to Title V Permit Condition Number 10423, Part 6(b) and Change of Permit Conditions Application Number (A/N) 28706).

Section 117.3: Gas Collection System Additional Construction Activities

During the construction that was completed on March 20, 2020, refer to Section 8-34-118.1.1 Actions Being Taken for further details of the activities regarding the construction activities at Newby Island.

Sections 117.4, 117.5 and 117.6: Gas Collection System Components Offline

During the construction that was completed on March 20, 2020, there were eight wells taken offline and one well that was decommissioned. Refer to the table below for well disconnection times.

Offline Well IDs	Well Action	Shutdown Time	Startup Time
NISS17-6	Temporary Disconnection	2/25/20 08:31	3/3/20 10:22
NIHC17-4	Temporary Disconnection	2/25/20 08:35	3/3/20 10:15
NISS17-3	Temporary Disconnection	2/25/20 11:24	3/3/20 10:52
NIHC17-1	Temporary Disconnection	2/25/20 11:29	2/28/20 10:16
NISS17-2	Temporary Disconnection	2/25/20 11:33	2/28/20 10:31
NISS17-1	Temporary Disconnection	2/25/20 11:37	3/3/2020 10:59
NIHC17-3	Temporary Disconnection	2/25/20 11:45	3/3/2020 10:40
NISS17-5	Temporary Disconnection	2/25/20 11:50	3/3/2020 10:30
NILLEW06	Decommissioning	3/5/20 15:32	N/A

Additionally, the construction and initial online dates and times of the new vertical LFG collectors and all offline and decommissioning dates and times were recorded, pursuant to BAAQMD Regulation 8, Rule 34, Sections 117 and 501. As stated above, a Combined Well Startup and Decommissioning Notification will be submitted to the BAAQMD pursuant to Title V Permit Condition Number 10423, Part 6(b) and Change of Permit Conditions Application Number (A/N) 28706.

Attachment: Construction Plan As-Built Map

Construction Plan As-Built Map

REPUBLIC SERVICES

Newby Island Landfill 1601 Dixon Landing Road, Milpitas, CA 95035
o 408.262.1401 f 408.270.8992 republicservices.com

April 6, 2020

Mr. Raymond Salalila
Air Quality Specialist
Compliance and Enforcement Division
Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, CA 94105

Re: Alternative Compliance Option (ACO) Request for Newby Island Sanitary Landfill and Recyclery
CalRecycle Solid Waste Information System Number: 43-AN-0003
1601 Dixon Landing Road, Milpitas, CA 95035

Dear Mr. Salalila:

International Disposal Corporation of California (IDCC) is submitting this request to the Bay Area Air Quality Management District (BAAQMD) Executive Officer (EO) on behalf of the Newby Island Sanitary Landfill and Recyclery (Newby Island). Newby Island, owned and operated by IDCC, is subject to the surface emission monitoring (SEM) requirements of the California Code of Regulations (CCR) Title 17, Division 3, Chapter 1, Subarticle 6, *Methane Emissions from Municipal Solid Waste Landfills* (Title 17), as mandated by Assembly Bill (AB) 32 Landfill Methane Rule (LMR) because the quantity of waste-in-place (WIP) is greater than 450,000 tons, the heat input capacity (HIC) of the Landfill exceeds 3.0 million British thermal units per hour (MMBTU/hr), and there is an active gas collection and control system (GCCS) onsite. Pursuant to the Memorandum of Understanding (MOU) dated August 29, 2011, the BAAQMD is responsible for enforcing California Air Resources Board (CARB) regulations.

This Alternative Compliance Option (ACO) request is being submitted pursuant to CCR §95468 and proposes alternatives and clarifications for consideration. The two proposed ACOs will allow for the safety and flexibility required for site operations, while continuing to maintain compliance with LMR requirements and the facility's BAAQMD permits.

ACO Request – Wind Speed

In accordance with CCR §95471(c)(1)(C), the LMR requires that SEM be terminated when the average wind speed exceeds five miles per hour (mph), measured as a 15-minute average, or the instantaneous wind speed exceeds 10 mph.

Newby Island is located in an area just east of the San Francisco Bay that experiences frequent high winds. Therefore, IDCC proposes the alternative that SEM monitoring be terminated only

when the average wind speed exceeds 10 mph measured as a 15-minute average or the instantaneous wind speed exceeds 20 mph.

Daily historical wind speed data from January 1, 2017 through December 31, 2019 is included in Attachment A of this submittal.

ACO Request – Measurable Precipitation

In accordance with CCR §95471(c)(1)(D), the LMR requires that SEM be conducted only when there has been no measurable precipitation in the preceding 72 hours.

Newby Island receives approximately 95 percent of its annual rainfall during the rainy season (October through April). As such, it is possible that measurable precipitation could occur within 72 hours of scheduled quarterly SEM during the rainy season.

Therefore, IDCC proposes that SEM be terminated if measurable precipitation occurs within the alternative requested ranges and timeframes detailed in the table below. The precipitation levels will be measured with an on-site rain gauge, which IDCC has already installed at Newby Island as a proactive measure. Further, the site will make every attempt to adhere to the 72-hour precipitation limitation for SEM in accordance with CCR §95471(c)(1)(D) before resorting to the alternative requested timeframes. Each quarterly SEM Report will document when precipitation has occurred within 24-72 hours of the monitoring event.

Precipitation Range (Inches)	Timeframe Prior to Monitoring (Hours)
≥ 0.01 to 0.15	24
≥ 0.16 to 0.24	48
≥ 0.25 and greater	72

Daily historical precipitation data from January 1, 2017 through December 31, 2019 is included in Attachment B of this submittal.

Conclusion

IDCC requests that the BAAQMD approve the proposed alternatives as historic monitoring data demonstrates the proposed alternatives are required for the site to complete monitoring in compliance with the LMR on a quarterly basis. Approval of the two proposed ACOs is paramount to the safety and flexibility required for site operations at Newby Island, while continuing to maintain compliance with LMR requirements and Newby Island's BAAQMD permits.

Pursuant CCR §95468(c), the EO shall review the requested alternatives and either approve or disapprove the proposed alternatives within 120 days of this submittal. IDCC looks forward to a response from the BAAQMD within 120 days of this submittal. If you have any questions regarding this notification, please do not hesitate to contact Meghan Caesar at (925) 241-1074, or by email at meghan.caesar@tetratech.com or Rachelle Huber at (408) 586-2263 or rhuber2@republicservices.com.

Sincerely,

Rachelle Huber

Rachelle Huber
Environmental Manager
Newby Island

Enclosures: Historical Wind Speed Data and Charts
Historical Precipitation Data and Charts

cc: Tamiko Endow, BAAQMD
Daniel Anderson, BAAQMD
Suzan Pankenier, Tetra Tech
Meghan Caesar, Tetra Tech

Attachment A
Historical Wind Speed Data and Charts

2017 Average Daily Wind Speed
Miles Per Hour (mph)

Day	15-Minute Average	Gust
1/1/2017	7.618	10.903
1/2/2017	9.742	13.566
1/3/2017	15.641	22.508
1/4/2017	8.649	12.233
1/5/2017	6.515	9.319
1/6/2017	3.910	5.961
1/7/2017	14.573	22.262
1/8/2017	18.675	27.228
1/9/2017	9.933	14.332
1/10/2017	13.293	18.940
1/11/2017	7.692	11.305
1/12/2017	5.815	8.350
1/13/2017	6.601	9.155
1/14/2017	5.233	7.523
1/15/2017	4.616	6.770
1/16/2017	5.263	8.166
1/17/2017	4.901	7.308
1/18/2017	15.919	22.878
1/19/2017	8.623	12.364
1/20/2017	12.107	18.268
1/21/2017	12.019	17.548
1/22/2017	15.528	22.542
1/23/2017	6.809	9.845
1/24/2017	6.310	9.008
1/25/2017	5.606	7.983
1/26/2017	5.868	8.021
1/27/2017	4.955	7.703
1/28/2017	3.666	5.384
1/29/2017	3.336	5.178
1/30/2017	3.439	5.131
1/31/2017	3.574	5.372
2/1/2017	8.916	13.444
2/2/2017	14.190	20.591
2/3/2017	12.205	17.811
2/4/2017	8.142	11.237
2/5/2017	11.427	16.667
2/6/2017	12.967	18.503
2/7/2017	10.927	15.765
2/8/2017	11.584	16.312
2/9/2017	12.590	18.384

2018 Average Daily Wind Speed
Miles Per Hour (mph)

Day	15-Minute Average	Gust
1/1/2018	1.400	5.000
1/2/2018	1.600	6.000
1/3/2018	3.900	13.000
1/4/2018	8.900	14.000
1/5/2018	7.900	18.000
1/6/2018	4.300	10.000
1/7/2018	1.800	7.000
1/8/2018	4.900	15.000
1/9/2018	9.700	15.000
1/10/2018	4.500	13.000
1/11/2018	2.400	10.000
1/12/2018	4.800	13.000
1/13/2018	2.200	6.000
1/14/2018	2.100	8.000
1/15/2018	3.300	10.000
1/16/2018	3.500	10.000
1/17/2018	2.600	9.000
1/18/2018	7.200	15.000
1/19/2018	6.500	16.000
1/20/2018	4.800	12.000
1/21/2018	4.700	8.000
1/22/2018	8.800	14.000
1/23/2018	2.200	8.000
1/24/2018	7.400	17.000
1/25/2018	6.489	8.862
1/26/2018	5.387	7.576
1/27/2018	5.599	7.975
1/28/2018	4.014	6.554
1/29/2018	4.361	6.549
1/30/2018	3.946	5.614
1/31/2018	4.714	6.650
2/1/2018	5.920	8.245
2/2/2018	6.833	10.244
2/3/2018	6.532	10.690
2/4/2018	5.600	7.959
2/5/2018	5.293	7.272
2/6/2018	9.439	15.821
2/7/2018	5.186	7.532
2/8/2018	4.467	6.238
2/9/2018	4.637	6.558

2019 Average Daily Wind Speed
Miles Per Hour (mph)

Day	15-Minute Average	Gust
1/1/2019	8.461	13.197
1/2/2019	4.559	6.394
1/3/2019	4.261	6.138
1/4/2019	4.156	6.337
1/5/2019	13.438	19.862
1/6/2019	14.685	21.264
1/7/2019	5.426	8.123
1/8/2019	7.796	11.471
1/9/2019	11.450	16.759
1/10/2019	4.624	6.711
1/11/2019	4.902	7.595
1/12/2019	6.419	9.446
1/13/2019	4.487	7.129
1/14/2019	7.851	11.656
1/15/2019	13.789	20.145
1/16/2019	19.752	28.901
1/17/2019	9.483	13.809
1/18/2019	3.343	5.013
1/19/2019	4.377	5.968
1/20/2019	10.079	14.505
1/21/2019	7.317	10.385
1/22/2019	8.470	11.360
1/23/2019	5.381	7.455
1/24/2019	7.033	10.016
1/25/2019	4.616	7.108
1/26/2019	3.089	5.084
1/27/2019	4.401	6.128
1/28/2019	4.015	5.993
1/29/2019	5.384	7.644
1/30/2019	4.768	7.139
1/31/2019	5.454	7.999
2/1/2019	14.311	20.876
2/2/2019	19.025	28.117
2/3/2019	12.693	18.474
2/4/2019	11.213	16.868
2/5/2019	7.088	10.449
2/6/2019	5.806	8.404
2/7/2019	4.621	6.925
2/8/2019	8.402	12.132
2/9/2019	9.968	14.274

2/10/2017	7.142	10.167
2/11/2017	8.324	11.096
2/12/2017	6.281	8.841
2/13/2017	4.886	7.052
2/14/2017	4.710	6.861
2/15/2017	7.070	10.281
2/16/2017	10.147	14.765
2/17/2017	15.332	23.457
2/18/2017	13.512	18.225
2/19/2017	15.185	21.630
2/20/2017	13.319	19.185
2/21/2017	7.925	11.372
2/22/2017	10.657	15.040
2/23/2017	7.784	10.917
2/24/2017	6.144	8.886
2/25/2017	6.503	9.338
2/26/2017	6.923	9.924
2/27/2017	7.733	11.015
2/28/2017	6.786	9.459
3/1/2017	6.427	8.834
3/2/2017	5.944	8.094
3/3/2017	6.803	9.545
3/4/2017	9.609	13.561
3/5/2017	11.478	17.572
3/6/2017	7.023	10.137
3/7/2017	6.788	9.417
3/8/2017	6.690	9.016
3/9/2017	6.705	9.000
3/10/2017	6.434	8.804
3/11/2017	7.087	9.274
3/12/2017	6.672	8.873
3/13/2017	4.470	6.459
3/14/2017	6.202	8.446
3/15/2017	7.401	10.624
3/16/2017	6.786	9.295
3/17/2017	5.608	7.708
3/18/2017	6.188	8.763
3/19/2017	5.264	7.742
3/20/2017	11.910	17.606
3/21/2017	13.035	19.182
3/22/2017	12.505	17.763
3/23/2017	6.766	10.131
3/24/2017	10.844	15.493

2/10/2018	8.757	12.235
2/11/2018	11.153	15.947
2/12/2018	8.260	11.615
2/13/2018	6.376	9.952
2/14/2018	6.151	9.168
2/15/2018	9.626	13.198
2/16/2018	5.946	8.390
2/17/2018	6.423	8.673
2/18/2018	17.049	22.926
2/19/2018	9.166	13.440
2/20/2018	5.725	8.840
2/21/2018	6.998	9.697
2/22/2018	13.353	18.639
2/23/2018	8.136	11.808
2/24/2018	8.959	12.684
2/25/2018	6.237	9.183
2/26/2018	10.410	14.810
2/27/2018	8.660	12.242
2/28/2018	6.781	10.035
3/1/2018	16.455	23.961
3/2/2018	8.059	12.596
3/3/2018	7.423	11.101
3/4/2018	7.125	10.091
3/5/2018	5.243	7.976
3/6/2018	5.013	7.545
3/7/2018	7.113	10.845
3/8/2018	7.544	10.356
3/9/2018	6.675	8.878
3/10/2018	3.540	5.151
3/11/2018	5.043	7.642
3/12/2018	8.793	13.354
3/13/2018	11.006	15.977
3/14/2018	8.014	11.506
3/15/2018	11.000	15.379
3/16/2018	7.859	11.696
3/17/2018	7.207	10.253
3/18/2018	5.026	7.404
3/19/2018	5.264	7.889
3/20/2018	8.806	13.336
3/21/2018	15.311	21.839
3/22/2018	15.166	21.106
3/23/2018	7.980	11.223
3/24/2018	9.523	13.391

2/10/2019	9.069	13.089
2/11/2019	5.816	8.262
2/12/2019	8.895	13.535
2/13/2019	20.363	30.288
2/14/2019	13.735	20.421
2/15/2019	8.601	13.372
2/16/2019	10.883	15.958
2/17/2019	9.869	13.879
2/18/2019	7.204	10.124
2/19/2019	6.156	8.560
2/20/2019	14.050	18.647
2/21/2019	11.300	16.489
2/22/2019	8.582	12.203
2/23/2019	6.273	8.438
2/24/2019	5.511	7.857
2/25/2019	14.661	20.880
2/26/2019	18.992	27.253
2/27/2019	15.267	21.659
2/28/2019	5.895	8.575
3/1/2019	3.691	5.344
3/2/2019	5.184	7.711
3/3/2019	6.826	9.698
3/4/2019	5.819	8.203
3/5/2019	11.353	17.120
3/6/2019	15.676	22.580
3/7/2019	6.090	8.931
3/8/2019	9.844	13.859
3/9/2019	12.968	18.286
3/10/2019	9.470	13.672
3/11/2019	7.573	10.364
3/12/2019	14.180	18.933
3/13/2019	10.814	14.452
3/14/2019	7.645	11.094
3/15/2019	5.934	8.432
3/16/2019	6.158	8.330
3/17/2019	5.157	7.219
3/18/2019	5.648	7.856
3/19/2019	6.937	10.372
3/20/2019	9.800	13.972
3/21/2019	6.289	8.925
3/22/2019	8.621	12.002
3/23/2019	7.748	10.923
3/24/2019	5.449	8.199

3/25/2017	8.119	11.090
3/26/2017	7.439	10.942
3/27/2017	12.512	17.215
3/28/2017	7.561	10.601
3/29/2017	7.590	10.677
3/30/2017	17.166	23.280
3/31/2017	14.399	21.325
4/1/2017	7.054	9.806
4/2/2017	7.442	10.133
4/3/2017	8.344	11.433
4/4/2017	6.602	9.322
4/5/2017	6.439	9.028
4/6/2017	13.745	20.314
4/7/2017	14.923	21.454
4/8/2017	9.419	13.573
4/9/2017	6.949	9.678
4/10/2017	7.112	9.880
4/11/2017	12.594	17.550
4/12/2017	13.479	19.152
4/13/2017	12.181	17.228
4/14/2017	10.183	13.933
4/15/2017	6.246	8.935
4/16/2017	9.383	13.681
4/17/2017	5.782	8.274
4/18/2017	6.460	8.918
4/19/2017	6.263	9.416
4/20/2017	8.928	12.481
4/21/2017	8.537	11.430
4/22/2017	7.798	11.245
4/23/2017	12.656	17.716
4/24/2017	9.227	13.290
4/25/2017	10.147	14.353
4/26/2017	8.013	11.582
4/27/2017	11.528	16.039
4/28/2017	8.721	11.865
4/29/2017	10.288	13.951
4/30/2017	7.807	10.336
5/1/2017	8.498	11.189
5/2/2017	7.248	9.696
5/3/2017	6.385	8.608
5/4/2017	8.748	11.786
5/5/2017	12.275	17.544
5/6/2017	13.661	19.036

3/25/2018	8.890	12.679
3/26/2018	9.682	13.108
3/27/2018	7.183	10.209
3/28/2018	6.975	9.594
3/29/2018	7.194	9.645
3/30/2018	6.401	8.451
3/31/2018	6.442	8.683
4/1/2018	6.023	8.815
4/2/2018	8.272	11.409
4/3/2018	7.138	9.646
4/4/2018	6.892	9.769
4/5/2018	5.830	8.075
4/6/2018	11.952	16.907
4/7/2018	10.640	14.806
4/8/2018	9.721	12.948
4/9/2018	5.922	8.546
4/10/2018	8.031	11.264
4/11/2018	8.989	13.339
4/12/2018	11.785	16.271
4/13/2018	8.595	11.362
4/14/2018	7.109	9.626
4/15/2018	10.026	13.899
4/16/2018	9.967	15.011
4/17/2018	8.103	11.618
4/18/2018	6.865	10.029
4/19/2018	8.135	11.408
4/20/2018	7.398	10.242
4/21/2018	6.938	9.394
4/22/2018	7.429	9.932
4/23/2018	7.020	9.582
4/24/2018	7.333	10.116
4/25/2018	8.460	11.832
4/26/2018	9.242	13.070
4/27/2018	8.907	12.633
4/28/2018	8.698	12.362
4/29/2018	13.167	17.796
4/30/2018	7.886	11.742
5/1/2018	8.600	12.330
5/2/2018	9.936	13.785
5/3/2018	7.576	10.557
5/4/2018	8.432	11.665
5/5/2018	8.090	11.191
5/6/2018	9.169	12.960

3/25/2019	10.477	14.941
3/26/2019	5.983	9.237
3/27/2019	11.756	17.940
3/28/2019	9.175	12.568
3/29/2019	8.452	11.405
3/30/2019	7.926	10.661
3/31/2019	6.634	8.907
4/1/2019	6.253	8.880
4/2/2019	8.898	12.099
4/3/2019	6.193	8.676
4/4/2019	9.150	13.180
4/5/2019	7.897	11.517
4/6/2019	8.892	12.377
4/7/2019	7.740	10.622
4/8/2019	7.522	10.810
4/9/2019	18.092	23.900
4/10/2019	12.512	16.630
4/11/2019	12.759	16.680
4/12/2019	8.152	11.458
4/13/2019	6.739	9.330
4/14/2019	9.201	12.821
4/15/2019	7.060	10.012
4/16/2019	9.707	13.469
4/17/2019	7.574	10.172
4/18/2019	6.386	8.607
4/19/2019	8.129	10.923
4/20/2019	11.893	16.665
4/21/2019	7.795	11.000
4/22/2019	7.841	10.647
4/23/2019	6.146	8.549
4/24/2019	6.509	8.911
4/25/2019	7.449	9.765
4/26/2019	6.516	8.837
4/27/2019	7.916	10.911
4/28/2019	8.586	12.007
4/29/2019	10.080	15.053
4/30/2019	11.113	15.877
5/1/2019	7.450	10.238
5/2/2019	7.590	10.134
5/3/2019	7.189	9.729
5/4/2019	8.519	11.608
5/5/2019	8.001	11.874
5/6/2019	8.528	11.986

5/7/2017	7.713	11.039
5/8/2017	6.935	9.841
5/9/2017	7.107	9.733
5/10/2017	11.782	16.608
5/11/2017	8.914	12.570
5/12/2017	16.982	22.994
5/13/2017	13.077	18.171
5/14/2017	9.352	13.508
5/15/2017	9.348	13.358
5/16/2017	9.621	13.620
5/17/2017	11.673	16.154
5/18/2017	7.468	10.256
5/19/2017	6.764	9.286
5/20/2017	6.952	9.516
5/21/2017	7.314	9.760
5/22/2017	8.286	10.790
5/23/2017	8.516	10.999
5/24/2017	8.415	11.528
5/25/2017	16.146	22.407
5/26/2017	10.803	15.261
5/27/2017	9.302	12.915
5/28/2017	9.597	13.656
5/29/2017	8.921	12.877
5/30/2017	9.016	12.937
5/31/2017	8.028	11.631
6/1/2017	8.484	12.189
6/2/2017	8.413	11.540
6/3/2017	9.573	12.816
6/4/2017	8.689	11.982
6/5/2017	7.614	10.580
6/6/2017	9.076	12.173
6/7/2017	7.623	10.550
6/8/2017	9.185	12.963
6/9/2017	10.887	14.699
6/10/2017	14.001	18.997
6/11/2017	17.260	23.441
6/12/2017	8.398	12.507
6/13/2017	8.793	11.655
6/14/2017	8.461	11.395
6/15/2017	9.743	13.029
6/16/2017	7.110	9.920
6/17/2017	7.586	10.233
6/18/2017	6.937	9.477

5/7/2018	7.658	10.552
5/8/2018	8.071	11.438
5/9/2018	10.508	15.082
5/10/2018	7.615	11.160
5/11/2018	9.126	12.365
5/12/2018	8.117	11.434
5/13/2018	10.130	14.692
5/14/2018	9.274	13.084
5/15/2018	10.305	14.627
5/16/2018	8.172	11.878
5/17/2018	9.259	13.099
5/18/2018	8.336	12.311
5/19/2018	10.439	14.940
5/20/2018	12.339	17.206
5/21/2018	9.430	13.437
5/22/2018	9.933	13.713
5/23/2018	9.771	13.489
5/24/2018	8.505	11.720
5/25/2018	8.540	12.046
5/26/2018	8.488	12.043
5/27/2018	7.209	9.769
5/28/2018	6.885	9.400
5/29/2018	8.523	11.166
5/30/2018	11.749	16.143
5/31/2018	11.796	16.959
6/1/2018	8.258	11.059
6/2/2018	6.871	9.112
6/3/2018	7.321	9.796
6/4/2018	9.494	13.005
6/5/2018	9.485	13.304
6/6/2018	9.167	13.160
6/7/2018	9.465	13.747
6/8/2018	9.034	12.675
6/9/2018	12.224	16.644
6/10/2018	10.475	14.391
6/11/2018	8.791	11.693
6/12/2018	7.397	9.884
6/13/2018	8.764	11.674
6/14/2018	8.177	11.452
6/15/2018	11.012	15.583
6/16/2018	13.441	19.260
6/17/2018	10.348	15.298
6/18/2018	8.413	11.748

5/7/2019	8.647	12.039
5/8/2019	7.493	10.628
5/9/2019	7.996	11.651
5/10/2019	8.765	12.331
5/11/2019	8.988	12.145
5/12/2019	7.373	10.752
5/13/2019	9.878	13.326
5/14/2019	7.546	10.924
5/15/2019	12.085	17.946
5/16/2019	11.545	16.797
5/17/2019	9.113	13.024
5/18/2019	10.839	15.447
5/19/2019	6.643	9.891
5/20/2019	7.620	10.759
5/21/2019	15.905	22.141
5/22/2019	11.645	15.971
5/23/2019	8.027	11.711
5/24/2019	8.738	12.597
5/25/2019	11.166	15.648
5/26/2019	12.626	18.092
5/27/2019	7.941	11.509
5/28/2019	7.922	11.404
5/29/2019	8.670	12.135
5/30/2019	8.983	12.635
5/31/2019	7.364	10.316
6/1/2019	7.669	10.473
6/2/2019	9.386	13.007
6/3/2019	7.506	10.534
6/4/2019	6.705	9.046
6/5/2019	8.577	11.142
6/6/2019	8.514	12.220
6/7/2019	10.421	13.718
6/8/2019	8.284	12.521
6/9/2019	7.130	9.736
6/10/2019	6.318	8.825
6/11/2019	6.392	8.752
6/12/2019	7.854	10.595
6/13/2019	8.121	11.135
6/14/2019	8.898	12.272
6/15/2019	8.114	11.951
6/16/2019	7.877	10.802
6/17/2019	8.605	11.916
6/18/2019	7.696	10.223

6/19/2017	8.101	10.619
6/20/2017	8.930	11.817
6/21/2017	7.620	10.294
6/22/2017	7.797	10.215
6/23/2017	8.884	11.582
6/24/2017	8.117	11.404
6/25/2017	9.334	13.188
6/26/2017	9.774	13.881
6/27/2017	9.947	14.259
6/28/2017	8.584	12.057
6/29/2017	8.890	12.312
6/30/2017	8.902	12.549
7/1/2017	8.393	11.665
7/2/2017	9.611	13.125
7/3/2017	7.713	10.566
7/4/2017	7.975	10.669
7/5/2017	8.878	11.777
7/6/2017	7.989	10.614
7/7/2017	6.788	9.315
7/8/2017	6.351	8.742
7/9/2017	8.621	11.180
7/10/2017	8.192	10.715
7/11/2017	8.157	10.867
7/12/2017	8.711	11.237
7/13/2017	7.663	10.593
7/14/2017	8.031	10.635
7/15/2017	6.464	9.025
7/16/2017	6.636	9.338
7/17/2017	8.807	11.546
7/18/2017	10.185	13.895
7/19/2017	8.294	11.092
7/20/2017	7.331	10.104
7/21/2017	8.819	11.614
7/22/2017	6.783	9.229
7/23/2017	8.157	10.532
7/24/2017	7.295	10.303
7/25/2017	10.091	14.049
7/26/2017	8.488	11.291
7/27/2017	7.603	10.068
7/28/2017	8.607	11.003
7/29/2017	7.725	10.266
7/30/2017	8.139	10.854
7/31/2017	8.141	10.756

6/19/2018	8.595	11.589
6/20/2018	9.903	13.708
6/21/2018	8.804	12.022
6/22/2018	6.968	9.620
6/23/2018	7.722	10.471
6/24/2018	9.703	13.577
6/25/2018	8.194	11.512
6/26/2018	7.689	10.485
6/27/2018	8.961	12.462
6/28/2018	8.674	12.370
6/29/2018	7.095	9.805
6/30/2018	6.914	9.544
7/1/2018	7.890	10.629
7/2/2018	7.668	10.293
7/3/2018	9.723	14.353
7/4/2018	11.107	15.875
7/5/2018	8.624	11.594
7/6/2018	8.067	11.019
7/7/2018	7.941	10.730
7/8/2018	8.168	11.260
7/9/2018	7.906	10.835
7/10/2018	7.760	10.480
7/11/2018	8.448	11.176
7/12/2018	7.567	10.230
7/13/2018	8.443	11.249
7/14/2018	8.958	12.052
7/15/2018	8.158	11.262
7/16/2018	8.387	11.132
7/17/2018	8.296	10.710
7/18/2018	7.678	10.158
7/19/2018	7.124	9.396
7/20/2018	7.058	9.706
7/21/2018	8.942	11.781
7/22/2018	8.185	11.024
7/23/2018	8.694	11.445
7/24/2018	8.191	10.675
7/25/2018	7.305	9.700
7/26/2018	8.989	11.739
7/27/2018	8.981	11.934
7/28/2018	7.702	10.436
7/29/2018	7.648	10.267
7/30/2018	8.448	10.866
7/31/2018	8.416	10.714

6/19/2019	8.327	11.564
6/20/2019	9.926	14.261
6/21/2019	7.604	10.914
6/22/2019	7.028	9.784
6/23/2019	6.685	9.224
6/24/2019	7.089	9.554
6/25/2019	7.120	10.093
6/26/2019	9.707	13.804
6/27/2019	10.111	14.320
6/28/2019	7.666	10.715
6/29/2019	8.468	11.493
6/30/2019	8.033	10.898
7/1/2019	7.527	10.577
7/2/2019	6.723	9.737
7/3/2019	7.001	10.251
7/4/2019	7.785	10.802
7/5/2019	7.009	9.651
7/6/2019	6.952	9.607
7/7/2019	7.529	10.806
7/8/2019	9.401	13.286
7/9/2019	8.612	12.546
7/10/2019	8.477	12.070
7/11/2019	9.164	12.573
7/12/2019	8.200	11.161
7/13/2019	8.267	10.777
7/14/2019	7.063	9.629
7/15/2019	8.862	12.076
7/16/2019	8.326	11.854
7/17/2019	8.431	11.833
7/18/2019	9.265	12.667
7/19/2019	8.746	12.646
7/20/2019	8.165	11.430
7/21/2019	7.996	10.681
7/22/2019	7.327	9.873
7/23/2019	7.605	10.077
7/24/2019	7.227	9.437
7/25/2019	7.633	10.056
7/26/2019	7.848	10.471
7/27/2019	6.311	8.615
7/28/2019	7.504	9.994
7/29/2019	7.976	11.314
7/30/2019	9.144	12.445
7/31/2019	8.275	11.065

8/1/2017	7.644	10.099
8/2/2017	7.640	10.197
8/3/2017	6.082	8.211
8/4/2017	6.518	8.998
8/5/2017	8.487	11.288
8/6/2017	8.983	12.388
8/7/2017	9.419	13.157
8/8/2017	9.002	12.464
8/9/2017	8.231	12.050
8/10/2017	9.073	12.908
8/11/2017	8.782	12.450
8/12/2017	9.030	12.637
8/13/2017	7.798	10.759
8/14/2017	9.354	13.124
8/15/2017	10.441	14.500
8/16/2017	7.852	11.329
8/17/2017	7.703	10.441
8/18/2017	8.205	10.863
8/19/2017	7.368	10.033
8/20/2017	9.560	13.716
8/21/2017	7.747	11.073
8/22/2017	7.947	10.822
8/23/2017	7.395	10.257
8/24/2017	6.474	9.558
8/25/2017	8.017	10.421
8/26/2017	5.646	7.992
8/27/2017	5.853	8.150
8/28/2017	7.504	9.824
8/29/2017	8.903	11.840
8/30/2017	8.671	11.511
8/31/2017	5.355	7.628
9/1/2017	6.132	8.393
9/2/2017	6.487	8.713
9/3/2017	7.633	10.333
9/4/2017	5.889	8.896
9/5/2017	8.064	10.835
9/6/2017	8.022	11.104
9/7/2017	9.686	13.529
9/8/2017	7.812	10.686
9/9/2017	6.328	9.068
9/10/2017	6.432	8.435
9/11/2017	7.948	11.322
9/12/2017	6.871	9.854

8/1/2018	9.232	11.890
8/2/2018	8.807	11.455
8/3/2018	6.141	8.318
8/4/2018	6.983	9.917
8/5/2018	7.916	10.835
8/6/2018	6.030	8.501
8/7/2018	7.298	9.475
8/8/2018	7.473	9.936
8/9/2018	6.987	9.458
8/10/2018	6.823	9.216
8/11/2018	6.933	9.525
8/12/2018	7.726	10.139
8/13/2018	8.431	11.457
8/14/2018	8.928	12.911
8/15/2018	8.898	12.957
8/16/2018	10.392	14.031
8/17/2018	7.632	9.993
8/18/2018	7.410	9.473
8/19/2018	7.068	9.382
8/20/2018	7.959	11.057
8/21/2018	7.592	10.985
8/22/2018	8.124	11.496
8/23/2018	8.903	12.203
8/24/2018	8.321	11.307
8/25/2018	7.999	10.716
8/26/2018	7.392	10.523
8/27/2018	8.698	12.449
8/28/2018	8.382	11.829
8/29/2018	8.027	11.628
8/30/2018	9.673	13.400
8/31/2018	8.675	12.039
9/1/2018	7.892	10.698
9/2/2018	7.120	9.453
9/3/2018	7.115	9.753
9/4/2018	7.295	9.803
9/5/2018	8.734	12.191
9/6/2018	7.314	9.870
9/7/2018	6.419	8.549
9/8/2018	7.392	9.724
9/9/2018	7.522	10.177
9/10/2018	7.654	10.490
9/11/2018	7.520	10.612
9/12/2018	7.107	10.590

8/1/2019	8.512	12.029
8/2/2019	8.102	11.091
8/3/2019	7.895	10.348
8/4/2019	8.418	11.670
8/5/2019	7.828	10.840
8/6/2019	8.587	11.335
8/7/2019	8.452	11.652
8/8/2019	8.717	12.539
8/9/2019	7.473	11.105
8/10/2019	8.678	12.465
8/11/2019	9.337	12.770
8/12/2019	7.470	10.023
8/13/2019	6.230	8.568
8/14/2019	6.493	8.684
8/15/2019	6.504	8.588
8/16/2019	7.276	9.736
8/17/2019	11.359	16.035
8/18/2019	12.611	18.320
8/19/2019	9.650	13.916
8/20/2019	8.837	12.861
8/21/2019	7.141	10.172
8/22/2019	8.059	10.951
8/23/2019	7.845	10.518
8/24/2019	8.293	10.832
8/25/2019	7.526	9.924
8/26/2019	6.639	9.066
8/27/2019	7.057	9.373
8/28/2019	8.739	11.730
8/29/2019	8.816	12.437
8/30/2019	6.941	9.311
8/31/2019	6.122	8.308
9/1/2019	6.654	8.918
9/2/2019	8.391	11.078
9/3/2019	7.910	10.885
9/4/2019	8.179	10.610
9/5/2019	8.591	12.140
9/6/2019	8.840	12.154
9/7/2019	10.321	14.827
9/8/2019	7.802	11.230
9/9/2019	8.123	11.753
9/10/2019	8.079	11.701
9/11/2019	6.982	9.428
9/12/2019	7.026	9.304

9/13/2017	7.829	11.363
9/14/2017	10.838	15.315
9/15/2017	6.741	9.886
9/16/2017	6.267	9.064
9/17/2017	6.919	9.683
9/18/2017	8.499	12.261
9/19/2017	9.875	13.666
9/20/2017	7.800	11.060
9/21/2017	14.055	19.382
9/22/2017	7.593	10.728
9/23/2017	7.462	10.199
9/24/2017	7.030	9.838
9/25/2017	6.319	8.879
9/26/2017	7.275	10.515
9/27/2017	5.803	8.110
9/28/2017	6.631	9.025
9/29/2017	7.587	10.778
9/30/2017	7.494	10.479
10/1/2017	7.608	10.129
10/2/2017	8.911	11.787
10/3/2017	6.300	9.118
10/4/2017	7.369	9.869
10/5/2017	6.116	8.350
10/6/2017	6.062	8.170
10/7/2017	7.362	9.791
10/8/2017	8.297	12.807
10/9/2017	8.350	12.485
10/10/2017	6.837	9.237
10/11/2017	7.319	10.063
10/12/2017	6.812	9.272
10/13/2017	7.263	9.482
10/14/2017	6.921	10.519
10/15/2017	5.473	7.688
10/16/2017	4.868	6.940
10/17/2017	4.712	6.504
10/18/2017	5.916	8.108
10/19/2017	6.283	9.664
10/20/2017	9.661	13.702
10/21/2017	6.640	9.355
10/22/2017	6.528	8.830
10/23/2017	8.611	13.316
10/24/2017	3.436	5.156
10/25/2017	4.424	6.425

9/13/2018	7.984	11.289
9/14/2018	7.138	9.666
9/15/2018	8.463	12.179
9/16/2018	8.202	11.288
9/17/2018	7.633	10.781
9/18/2018	6.989	9.690
9/19/2018	6.650	9.017
9/20/2018	5.866	8.090
9/21/2018	7.519	9.717
9/22/2018	6.055	8.280
9/23/2018	6.667	8.915
9/24/2018	5.407	7.471
9/25/2018	5.679	7.848
9/26/2018	5.611	8.026
9/27/2018	6.550	8.593
9/28/2018	6.419	9.349
9/29/2018	7.667	10.829
9/30/2018	7.281	10.041
10/1/2018	6.569	9.302
10/2/2018	6.098	8.881
10/3/2018	6.927	10.039
10/4/2018	7.583	11.090
10/5/2018	6.000	16.000
10/6/2018	6.500	18.000
10/7/2018	10.700	18.000
10/8/2018	5.300	12.000
10/9/2018	8.000	18.000
10/10/2018	7.700	15.000
10/11/2018	6.400	12.000
10/12/2018	4.400	15.000
10/13/2018	5.200	13.000
10/14/2018	5.100	15.000
10/15/2018	4.500	15.000
10/16/2018	5.700	13.000
10/17/2018	3.400	10.000
10/18/2018	3.300	8.000
10/19/2018	3.500	12.000
10/20/2018	3.600	10.000
10/21/2018	5.600	12.000
10/22/2018	5.100	12.000
10/23/2018	4.700	15.000
10/24/2018	5.900	13.000
10/25/2018	4.000	12.000

9/13/2019	6.481	8.663
9/14/2019	7.419	9.737
9/15/2019	8.837	12.467
9/16/2019	7.956	11.701
9/17/2019	7.411	10.507
9/18/2019	7.877	11.065
9/19/2019	7.430	10.195
9/20/2019	7.786	10.247
9/21/2019	7.533	10.381
9/22/2019	6.396	9.024
9/23/2019	7.662	10.287
9/24/2019	7.548	10.146
9/25/2019	6.854	9.567
9/26/2019	9.848	13.915
9/27/2019	10.576	15.067
9/28/2019	14.300	19.458
9/29/2019	8.248	11.815
9/30/2019	8.439	11.761
10/1/2019	7.354	10.001
10/2/2019	7.390	9.657
10/3/2019	6.288	9.257
10/4/2019	8.217	10.783
10/5/2019	7.035	9.465
10/6/2019	5.717	8.131
10/7/2019	5.633	7.758
10/8/2019	5.889	8.024
10/9/2019	4.015	5.789
10/10/2019	3.517	5.782
10/11/2019	5.038	6.897
10/12/2019	5.947	7.965
10/13/2019	6.359	8.592
10/14/2019	6.014	8.305
10/15/2019	5.183	7.324
10/16/2019	5.472	7.653
10/17/2019	10.950	14.916
10/18/2019	6.687	9.497
10/19/2019	5.372	7.656
10/20/2019	6.848	8.979
10/21/2019	6.269	8.526
10/22/2019	6.192	8.452
10/23/2019	6.600	9.715
10/24/2019	4.663	7.052
10/25/2019	5.350	7.366

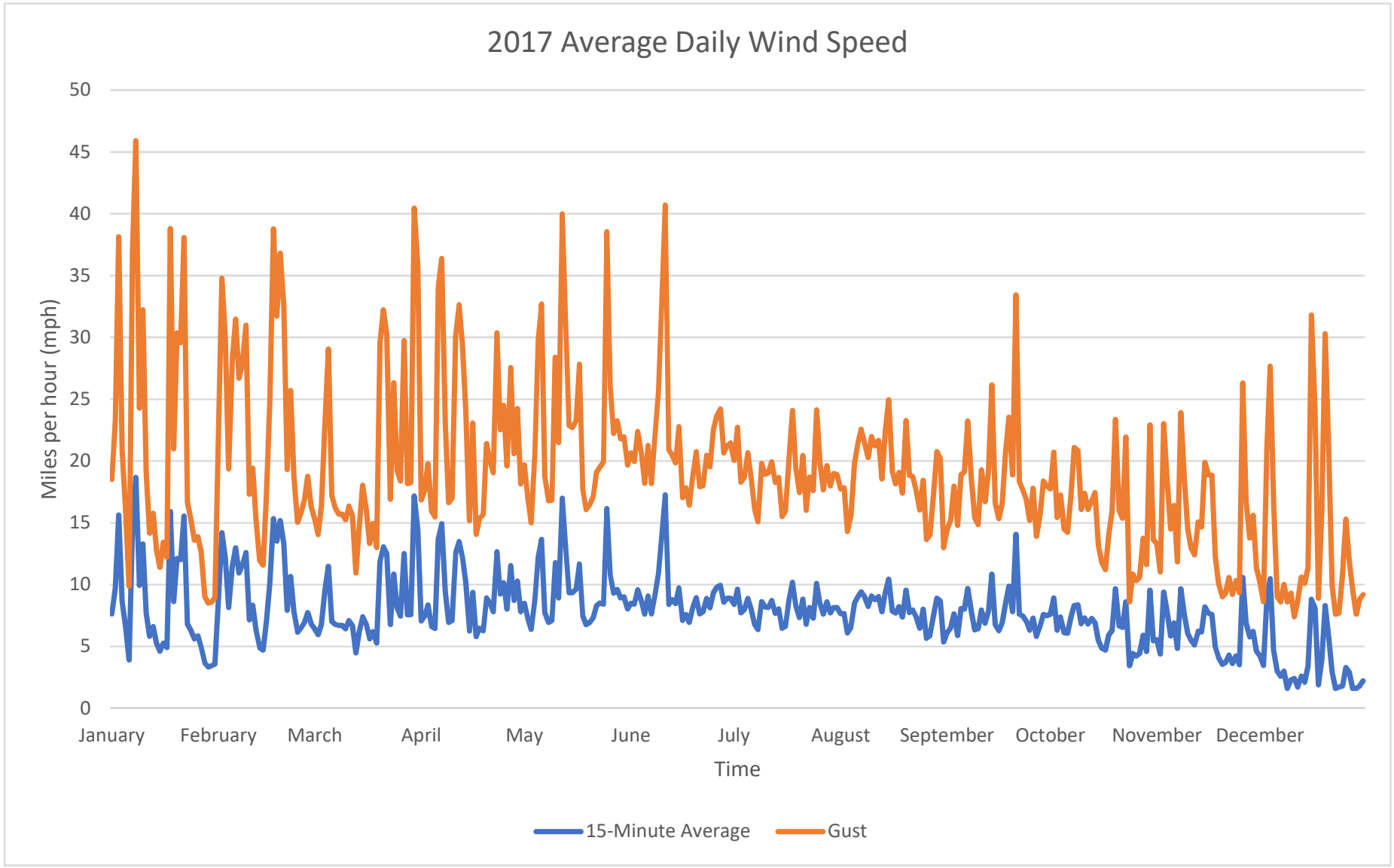
10/26/2017	4.235	6.099
10/27/2017	4.422	6.167
10/28/2017	5.905	7.842
10/29/2017	4.594	7.019
10/30/2017	9.563	13.343
10/31/2017	5.458	8.204
11/1/2017	5.530	7.733
11/2/2017	4.388	6.635
11/3/2017	9.391	13.630
11/4/2017	7.855	10.650
11/5/2017	5.845	8.645
11/6/2017	6.890	9.520
11/7/2017	4.833	7.018
11/8/2017	9.667	14.230
11/9/2017	7.540	10.922
11/10/2017	6.037	8.425
11/11/2017	5.488	7.471
11/12/2017	5.103	7.304
11/13/2017	6.218	8.846
11/14/2017	6.173	8.478
11/15/2017	8.198	11.699
11/16/2017	7.698	11.176
11/17/2017	7.572	11.279
11/18/2017	4.969	7.322
11/19/2017	4.096	5.955
11/20/2017	3.540	5.463
11/21/2017	3.697	5.606
11/22/2017	4.282	6.301
11/23/2017	3.619	5.587
11/24/2017	4.216	6.099
11/25/2017	3.529	5.810
11/26/2017	10.582	15.733
11/27/2017	6.874	9.836
11/28/2017	5.776	8.001
11/29/2017	6.216	9.392
11/30/2017	4.609	6.760
12/1/2017	4.237	5.995
12/2/2017	3.459	5.158
12/3/2017	8.789	12.075
12/4/2017	10.478	17.185
12/5/2017	4.700	12.000
12/6/2017	3.000	6.000
12/7/2017	2.600	6.000

10/26/2018	3.100	10.000
10/27/2018	6.100	17.000
10/28/2018	6.400	15.000
10/29/2018	8.000	18.000
10/30/2018	5.800	16.000
10/31/2018	4.100	14.000
11/1/2018	5.200	17.000
11/2/2018	4.400	20.000
11/3/2018	4.200	16.000
11/4/2018	3.700	18.000
11/5/2018	4.600	16.000
11/6/2018	4.300	18.000
11/7/2018	3.800	18.000
11/8/2018	6.900	12.000
11/9/2018	3.100	18.000
11/10/2018	2.100	15.000
11/11/2018	4.000	12.000
11/12/2018	2.100	15.000
11/13/2018	1.600	13.000
11/14/2018	2.700	15.000
11/15/2018	1.700	15.000
11/16/2018	2.100	13.000
11/17/2018	3.400	10.000
11/18/2018	2.300	8.000
11/19/2018	1.900	12.000
11/20/2018	2.000	10.000
11/21/2018	8.500	12.000
11/22/2018	6.000	12.000
11/23/2018	7.300	15.000
11/24/2018	2.800	13.000
11/25/2018	2.400	12.000
11/26/2018	4.963	6.670
11/27/2018	7.037	9.502
11/28/2018	8.904	13.550
11/29/2018	12.492	18.234
11/30/2018	9.489	13.239
12/1/2018	9.556	13.645
12/2/2018	4.209	6.157
12/3/2018	4.330	6.654
12/4/2018	3.935	6.265
12/5/2018	4.512	6.846
12/6/2018	4.445	6.423
12/7/2018	4.119	5.941

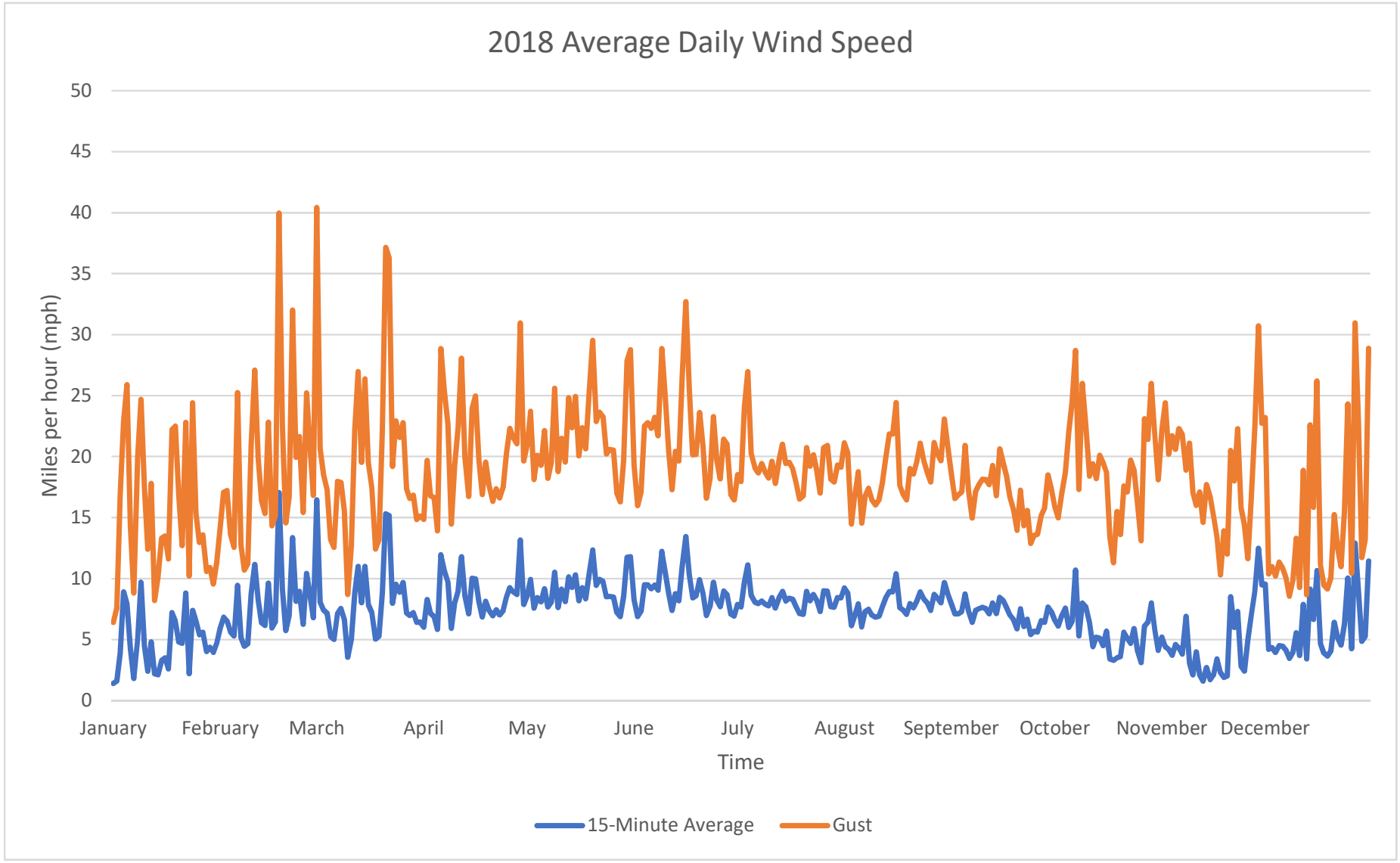
10/26/2019	5.919	7.949
10/27/2019	14.825	23.696
10/28/2019	6.865	10.366
10/29/2019	8.185	12.806
10/30/2019	5.062	7.645
10/31/2019	5.437	7.305
11/1/2019	4.945	7.014
11/2/2019	3.791	5.565
11/3/2019	4.158	6.064
11/4/2019	4.115	5.910
11/5/2019	3.830	5.523
11/6/2019	5.367	7.229
11/7/2019	4.540	6.542
11/8/2019	4.304	6.272
11/9/2019	4.518	6.617
11/10/2019	4.653	6.968
11/11/2019	3.014	4.750
11/12/2019	3.677	5.164
11/13/2019	4.752	6.478
11/14/2019	7.554	10.510
11/15/2019	7.217	9.769
11/16/2019	4.135	6.302
11/17/2019	3.775	5.637
11/18/2019	4.191	6.024
11/19/2019	10.041	13.866
11/20/2019	6.724	9.563
11/21/2019	5.373	7.786
11/22/2019	4.866	6.879
11/23/2019	4.309	6.257
11/24/2019	4.311	6.165
11/25/2019	10.242	14.232
11/26/2019	9.600	14.527
11/27/2019	6.924	10.430
11/28/2019	6.954	9.918
11/29/2019	5.401	7.725
11/30/2019	17.158	24.968
12/1/2019	25.604	35.600
12/2/2019	11.157	17.012
12/3/2019	3.244	5.034
12/4/2019	4.156	6.231
12/5/2019	4.341	6.500
12/6/2019	13.146	18.795
12/7/2019	15.083	22.603

12/8/2017	3.000	7.000	12/8/2018	3.449	5.103	12/8/2019	6.257	8.750
12/9/2017	1.600	7.000	12/9/2018	3.913	5.869	12/9/2019	4.541	6.368
12/10/2017	2.300	7.000	12/10/2018	5.554	7.742	12/10/2019	5.518	8.096
12/11/2017	2.400	5.000	12/11/2018	3.682	5.596	12/11/2019	8.285	11.621
12/12/2017	1.700	7.000	12/12/2018	7.874	10.995	12/12/2019	7.028	9.320
12/13/2017	2.600	8.000	12/13/2018	3.406	5.270	12/13/2019	5.571	7.942
12/14/2017	2.100	8.000	12/14/2018	9.126	13.480	12/14/2019	10.530	14.781
12/15/2017	3.400	8.000	12/15/2018	6.635	9.205	12/15/2019	5.671	8.066
12/16/2017	8.800	23.000	12/16/2018	10.647	15.552	12/16/2019	4.645	7.415
12/17/2017	8.100	16.000	12/17/2018	4.680	6.502	12/17/2019	4.013	6.355
12/18/2017	1.900	7.000	12/18/2018	3.885	5.572	12/18/2019	12.575	18.235
12/19/2017	3.900	12.000	12/19/2018	3.649	5.494	12/19/2019	5.391	7.362
12/20/2017	8.300	22.000	12/20/2018	4.052	6.024	12/20/2019	3.112	4.792
12/21/2017	5.700	15.000	12/21/2018	6.404	8.822	12/21/2019	6.786	9.628
12/22/2017	2.900	7.000	12/22/2018	5.141	7.374	12/22/2019	9.847	14.847
12/23/2017	1.600	6.000	12/23/2018	4.558	6.425	12/23/2019	4.621	6.655
12/24/2017	1.700	6.000	12/24/2018	6.243	9.198	12/24/2019	5.487	7.587
12/25/2017	1.800	9.000	12/25/2018	10.049	14.267	12/25/2019	11.124	16.354
12/26/2017	3.300	12.000	12/26/2018	4.243	6.197	12/26/2019	11.106	15.893
12/27/2017	2.900	9.000	12/27/2018	12.909	18.049	12/27/2019	4.597	6.295
12/28/2017	1.600	8.000	12/28/2018	8.973	13.852	12/28/2019	4.074	5.927
12/29/2017	1.600	6.000	12/29/2018	4.861	6.850	12/29/2019	6.872	9.479
12/30/2017	1.800	7.000	12/30/2018	5.263	7.952	12/30/2019	6.830	9.616
12/31/2017	2.200	7.000	12/31/2018	11.436	17.442	12/31/2019	4.243	6.186

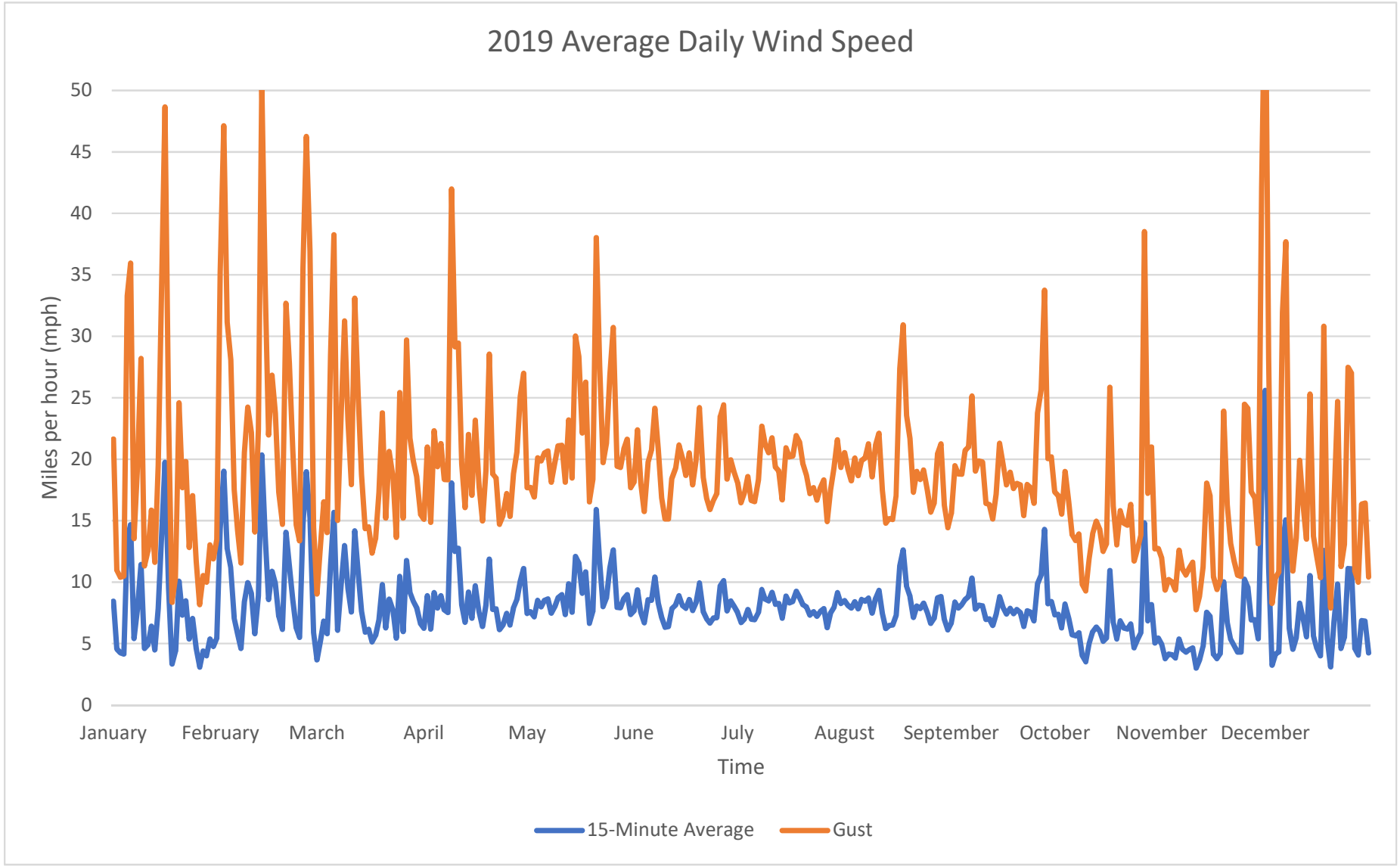
Source: Historical weather data was provided by IDCC from the Newby Island Weather Station. Weather data from www.wunderground.com (Station ID: KSJC) used on a supplemental basis for the following dates: December 11-31, 2017; January 1-24, 2018; and October 5-November 25, 2018. Daily averages of historical weather data based on the time of monitoring.



Source: Historical weather data was provided by IDCC from the Newby Island Weather Station. Weather data from www.wunderground.com (Station ID: KSJC) used on a supplemental basis for the following dates: December 11-31, 2017; January 1-24, 2018; and October 5-November 25, 2018. Daily averages of historical weather data based on the time of monitoring.



Source: Historical weather data was provided by IDCC from the Newby Island Weather Station. Weather data from www.wunderground.com (Station ID: KSJC) used on a supplemental basis for the following dates: December 11-31, 2017; January 1-24, 2018; and October 5-November 25, 2018. Daily averages of historical weather data based on the time of monitoring.



Source: Historical weather data was provided by IDCC from the Newby Island Weather Station. Weather data from www.wunderground.com (Station ID: KSJC) used on a supplemental basis for the following dates: December 11-31, 2017; January 1-24, 2018; and October 5-November 25, 2018. Daily averages of historical weather data based on the time of monitoring.

Attachment B
Historical Precipitation Data and Charts

2017 Total Daily Precipitation
Inches

Date	Total Precipitation
1/1/2017	0.000
1/2/2017	0.020
1/3/2017	0.290
1/4/2017	0.240
1/5/2017	0.030
1/6/2017	0.000
1/7/2017	0.340
1/8/2017	0.880
1/9/2017	0.160
1/10/2017	0.820
1/11/2017	0.090
1/12/2017	0.140
1/13/2017	0.000
1/14/2017	0.000
1/15/2017	0.000
1/16/2017	0.000
1/17/2017	0.000
1/18/2017	0.480
1/19/2017	0.400
1/20/2017	0.880
1/21/2017	0.190
1/22/2017	0.660
1/23/2017	0.220
1/24/2017	0.010
1/25/2017	0.000
1/26/2017	0.000
1/27/2017	0.000
1/28/2017	0.000
1/29/2017	0.000
1/30/2017	0.000
1/31/2017	0.000

2018 Total Daily Precipitation
Inches

Date	Total Precipitation
1/1/2018	0.000
1/2/2018	0.000
1/3/2018	0.000
1/4/2018	0.410
1/5/2018	0.000
1/6/2018	0.090
1/7/2018	0.000
1/8/2018	0.130
1/9/2018	1.680
1/10/2018	0.230
1/11/2018	0.000
1/12/2018	0.000
1/13/2018	0.000
1/14/2018	0.000
1/15/2018	0.000
1/16/2018	0.000
1/17/2018	0.000
1/18/2018	0.000
1/19/2018	0.120
1/20/2018	0.000
1/21/2018	0.000
1/22/2018	0.000
1/23/2018	0.040
1/24/2018	0.000
1/25/2018	0.000
1/26/2018	0.000
1/27/2018	0.000
1/28/2018	0.000
1/29/2018	0.000
1/30/2018	0.000
1/31/2018	0.000

2019 Total Daily Precipitation
Inches

Date	Total Precipitation
1/1/2019	0.000
1/2/2019	0.000
1/3/2019	0.000
1/4/2019	0.000
1/5/2019	0.170
1/6/2019	0.650
1/7/2019	0.000
1/8/2019	0.040
1/9/2019	0.090
1/10/2019	0.010
1/11/2019	0.070
1/12/2019	0.000
1/13/2019	0.000
1/14/2019	0.030
1/15/2019	0.080
1/16/2019	0.870
1/17/2019	0.120
1/18/2019	0.000
1/19/2019	0.000
1/20/2019	0.170
1/21/2019	0.000
1/22/2019	0.000
1/23/2019	0.000
1/24/2019	0.000
1/25/2019	0.000
1/26/2019	0.000
1/27/2019	0.000
1/28/2019	0.000
1/29/2019	0.010
1/30/2019	0.000
1/31/2019	0.200

2/1/2017	0.020
2/2/2017	0.190
2/3/2017	0.370
2/4/2017	0.000
2/5/2017	0.130
2/6/2017	0.380
2/7/2017	0.360
2/8/2017	0.070
2/9/2017	0.460
2/10/2017	0.110
2/11/2017	0.000
2/12/2017	0.000
2/13/2017	0.000
2/14/2017	0.000
2/15/2017	0.000
2/16/2017	0.080
2/17/2017	0.870
2/18/2017	0.110
2/19/2017	0.000
2/20/2017	1.920
2/21/2017	0.520
2/22/2017	0.000
2/23/2017	0.000
2/24/2017	0.000
2/25/2017	0.000
2/26/2017	0.020
2/27/2017	0.040
2/28/2017	0.000
3/1/2017	0.000
3/2/2017	0.000
3/3/2017	0.000
3/4/2017	0.300
3/5/2017	0.190
3/6/2017	0.050

2/1/2018	0.000
2/2/2018	0.000
2/3/2018	0.000
2/4/2018	0.000
2/5/2018	0.000
2/6/2018	0.000
2/7/2018	0.000
2/8/2018	0.000
2/9/2018	0.000
2/10/2018	0.000
2/11/2018	0.000
2/12/2018	0.000
2/13/2018	0.000
2/14/2018	0.000
2/15/2018	0.000
2/16/2018	0.000
2/17/2018	0.000
2/18/2018	0.000
2/19/2018	0.000
2/20/2018	0.000
2/21/2018	0.000
2/22/2018	0.000
2/23/2018	0.000
2/24/2018	0.000
2/25/2018	0.000
2/26/2018	0.220
2/27/2018	0.000
2/28/2018	0.000
3/1/2018	0.580
3/2/2018	0.220
3/3/2018	0.290
3/4/2018	0.000
3/5/2018	0.000
3/6/2018	0.000

2/1/2019	0.050
2/2/2019	0.710
2/3/2019	0.120
2/4/2019	0.780
2/5/2019	0.130
2/6/2019	0.000
2/7/2019	0.000
2/8/2019	0.300
2/9/2019	0.260
2/10/2019	0.340
2/11/2019	0.000
2/12/2019	0.010
2/13/2019	0.500
2/14/2019	0.860
2/15/2019	0.230
2/16/2019	0.400
2/17/2019	0.330
2/18/2019	0.000
2/19/2019	0.000
2/20/2019	0.000
2/21/2019	0.000
2/22/2019	0.000
2/23/2019	0.000
2/24/2019	0.000
2/25/2019	0.000
2/26/2019	0.040
2/27/2019	0.200
2/28/2019	0.030
3/1/2019	0.010
3/2/2019	0.960
3/3/2019	0.040
3/4/2019	0.000
3/5/2019	0.130
3/6/2019	0.420

3/7/2017	0.000
3/8/2017	0.000
3/9/2017	0.000
3/10/2017	0.000
3/11/2017	0.000
3/12/2017	0.000
3/13/2017	0.000
3/14/2017	0.000
3/15/2017	0.000
3/16/2017	0.000
3/17/2017	0.000
3/18/2017	0.000
3/19/2017	0.000
3/20/2017	0.180
3/21/2017	0.210
3/22/2017	0.770
3/23/2017	0.000
3/24/2017	0.290
3/25/2017	0.030
3/26/2017	0.060
3/27/2017	0.000
3/28/2017	0.000
3/29/2017	0.000
3/30/2017	0.010
3/31/2017	0.000
4/1/2017	0.000
4/2/2017	0.000
4/3/2017	0.000
4/4/2017	0.000
4/5/2017	0.000
4/6/2017	0.180
4/7/2017	0.160
4/8/2017	0.530
4/9/2017	0.000

3/7/2018	0.000
3/8/2018	0.020
3/9/2018	0.000
3/10/2018	0.000
3/11/2018	0.000
3/12/2018	0.370
3/13/2018	2.100
3/14/2018	0.320
3/15/2018	0.080
3/16/2018	0.160
3/17/2018	0.000
3/18/2018	0.000
3/19/2018	0.000
3/20/2018	0.090
3/21/2018	0.010
3/22/2018	0.490
3/23/2018	0.000
3/24/2018	0.010
3/25/2018	0.000
3/26/2018	0.000
3/27/2018	0.000
3/28/2018	0.000
3/29/2018	0.000
3/30/2018	0.000
3/31/2018	0.000
4/1/2018	0.000
4/2/2018	0.000
4/3/2018	0.000
4/4/2018	0.000
4/5/2018	0.470
4/6/2018	1.010
4/7/2018	0.610
4/8/2018	0.000
4/9/2018	0.000

3/7/2019	0.080
3/8/2019	0.020
3/9/2019	0.020
3/10/2019	0.090
3/11/2019	0.000
3/12/2019	0.000
3/13/2019	0.000
3/14/2019	0.000
3/15/2019	0.000
3/16/2019	0.000
3/17/2019	0.000
3/18/2019	0.000
3/19/2019	0.080
3/20/2019	0.280
3/21/2019	0.000
3/22/2019	0.220
3/23/2019	0.540
3/24/2019	0.000
3/25/2019	0.300
3/26/2019	0.050
3/27/2019	0.390
3/28/2019	0.020
3/29/2019	0.000
3/30/2019	0.000
3/31/2019	0.000
4/1/2019	0.030
4/2/2019	0.040
4/3/2019	0.000
4/4/2019	0.000
4/5/2019	0.100
4/6/2019	0.000
4/7/2019	0.000
4/8/2019	0.000
4/9/2019	0.000

4/10/2017	0.000
4/11/2017	0.000
4/12/2017	0.020
4/13/2017	0.130
4/14/2017	0.000
4/15/2017	0.000
4/16/2017	0.170
4/17/2017	0.040
4/18/2017	0.080
4/19/2017	0.000
4/20/2017	0.130
4/21/2017	0.000
4/22/2017	0.000
4/23/2017	0.000
4/24/2017	0.000
4/25/2017	0.000
4/26/2017	0.000
4/27/2017	0.000
4/28/2017	0.000
4/29/2017	0.000
4/30/2017	0.000
5/1/2017	0.000
5/2/2017	0.000
5/3/2017	0.000
5/4/2017	0.000
5/5/2017	0.000
5/6/2017	0.000
5/7/2017	0.000
5/8/2017	0.000
5/9/2017	0.000
5/10/2017	0.000
5/11/2017	0.000
5/12/2017	0.000
5/13/2017	0.000

4/10/2018	0.000
4/11/2018	0.090
4/12/2018	0.040
4/13/2018	0.000
4/14/2018	0.000
4/15/2018	0.040
4/16/2018	0.120
4/17/2018	0.000
4/18/2018	0.000
4/19/2018	0.000
4/20/2018	0.000
4/21/2018	0.000
4/22/2018	0.000
4/23/2018	0.000
4/24/2018	0.000
4/25/2018	0.000
4/26/2018	0.000
4/27/2018	0.000
4/28/2018	0.000
4/29/2018	0.000
4/30/2018	0.000
5/1/2018	0.000
5/2/2018	0.000
5/3/2018	0.000
5/4/2018	0.000
5/5/2018	0.000
5/6/2018	0.000
5/7/2018	0.000
5/8/2018	0.000
5/9/2018	0.000
5/10/2018	0.000
5/11/2018	0.000
5/12/2018	0.000
5/13/2018	0.000

4/10/2019	0.000
4/11/2019	0.000
4/12/2019	0.000
4/13/2019	0.000
4/14/2019	0.000
4/15/2019	0.050
4/16/2019	0.040
4/17/2019	0.000
4/18/2019	0.000
4/19/2019	0.000
4/20/2019	0.000
4/21/2019	0.000
4/22/2019	0.000
4/23/2019	0.000
4/24/2019	0.000
4/25/2019	0.000
4/26/2019	0.000
4/27/2019	0.000
4/28/2019	0.000
4/29/2019	0.000
4/30/2019	0.000
5/1/2019	0.000
5/2/2019	0.000
5/3/2019	0.000
5/4/2019	0.000
5/5/2019	0.010
5/6/2019	0.000
5/7/2019	0.000
5/8/2019	0.000
5/9/2019	0.000
5/10/2019	0.000
5/11/2019	0.000
5/12/2019	0.000
5/13/2019	0.000

5/14/2017	0.000
5/15/2017	0.000
5/16/2017	0.050
5/17/2017	0.010
5/18/2017	0.000
5/19/2017	0.000
5/20/2017	0.000
5/21/2017	0.000
5/22/2017	0.000
5/23/2017	0.000
5/24/2017	0.000
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5/28/2017	0.000
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6/3/2017	0.000
6/4/2017	0.000
6/5/2017	0.000
6/6/2017	0.000
6/7/2017	0.000
6/8/2017	0.000
6/9/2017	0.010
6/10/2017	0.000
6/11/2017	0.000
6/12/2017	0.000
6/13/2017	0.000
6/14/2017	0.000
6/15/2017	0.000
6/16/2017	0.000

5/14/2018	0.000
5/15/2018	0.000
5/16/2018	0.000
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5/19/2018	0.000
5/20/2018	0.000
5/21/2018	0.000
5/22/2018	0.000
5/23/2018	0.000
5/24/2018	0.000
5/25/2018	0.010
5/26/2018	0.000
5/27/2018	0.000
5/28/2018	0.000
5/29/2018	0.000
5/30/2018	0.000
5/31/2018	0.000
6/1/2018	0.000
6/2/2018	0.000
6/3/2018	0.000
6/4/2018	0.000
6/5/2018	0.000
6/6/2018	0.000
6/7/2018	0.000
6/8/2018	0.000
6/9/2018	0.010
6/10/2018	0.000
6/11/2018	0.000
6/12/2018	0.000
6/13/2018	0.000
6/14/2018	0.000
6/15/2018	0.000
6/16/2018	0.000

5/14/2019	0.000
5/15/2019	0.450
5/16/2019	0.150
5/17/2019	0.040
5/18/2019	0.260
5/19/2019	0.540
5/20/2019	0.000
5/21/2019	0.190
5/22/2019	0.000
5/23/2019	0.000
5/24/2019	0.000
5/25/2019	0.000
5/26/2019	0.050
5/27/2019	0.010
5/28/2019	0.000
5/29/2019	0.000
5/30/2019	0.000
5/31/2019	0.000
6/1/2019	0.000
6/2/2019	0.000
6/3/2019	0.000
6/4/2019	0.000
6/5/2019	0.000
6/6/2019	0.000
6/7/2019	0.000
6/8/2019	0.000
6/9/2019	0.000
6/10/2019	0.000
6/11/2019	0.000
6/12/2019	0.000
6/13/2019	0.000
6/14/2019	0.000
6/15/2019	0.000
6/16/2019	0.000

6/17/2017	0.000
6/18/2017	0.000
6/19/2017	0.000
6/20/2017	0.000
6/21/2017	0.000
6/22/2017	0.000
6/23/2017	0.000
6/24/2017	0.000
6/25/2017	0.000
6/26/2017	0.000
6/27/2017	0.000
6/28/2017	0.000
6/29/2017	0.000
6/30/2017	0.000
7/1/2017	0.000
7/2/2017	0.000
7/3/2017	0.000
7/4/2017	0.000
7/5/2017	0.000
7/6/2017	0.000
7/7/2017	0.000
7/8/2017	0.000
7/9/2017	0.000
7/10/2017	0.000
7/11/2017	0.000
7/12/2017	0.000
7/13/2017	0.000
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11/11/2017	0.000
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11/15/2017	0.000
11/16/2017	0.030
11/17/2017	0.050
11/18/2017	0.050
11/19/2017	0.040
11/20/2017	0.030
11/21/2017	0.030
11/22/2017	0.020
11/23/2017	0.020
11/24/2017	0.080
11/25/2017	0.010
11/26/2017	0.010
11/27/2017	0.030
11/28/2017	0.010
11/29/2017	0.000
11/30/2017	0.010
12/1/2017	0.010
12/2/2017	0.000
12/3/2017	0.010

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11/14/2018	0.000
11/15/2018	0.000
11/16/2018	0.000
11/17/2018	0.000
11/18/2018	0.000
11/19/2018	0.000
11/20/2018	0.000
11/21/2018	0.000
11/22/2018	0.230
11/23/2018	0.210
11/24/2018	0.260
11/25/2018	0.020
11/26/2018	0.000
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11/28/2018	0.000
11/29/2018	0.000
11/30/2018	0.030
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12/2/2018	0.000
12/3/2018	0.000

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11/6/2019	0.000
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11/10/2019	0.000
11/11/2019	0.000
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11/14/2019	0.000
11/15/2019	0.000
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11/17/2019	0.000
11/18/2019	0.000
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11/20/2019	0.000
11/21/2019	0.000
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11/23/2019	0.000
11/24/2019	0.000
11/25/2019	0.000
11/26/2019	0.400
11/27/2019	0.330
11/28/2019	0.010
11/29/2019	0.050
11/30/2019	0.140
12/1/2019	0.040
12/2/2019	0.230
12/3/2019	0.010

12/4/2017	0.400	12/4/2018	0.000	12/4/2019	0.330
12/5/2017	0.000	12/5/2018	0.000	12/5/2019	0.010
12/6/2017	0.000	12/6/2018	0.000	12/6/2019	0.050
12/7/2017	0.000	12/7/2018	0.000	12/7/2019	0.430
12/8/2017	0.000	12/8/2018	0.000	12/8/2019	0.070
12/9/2017	0.000	12/9/2018	0.000	12/9/2019	0.000
12/10/2017	0.000	12/10/2018	0.000	12/10/2019	0.070
12/11/2017	0.000	12/11/2018	0.000	12/11/2019	0.000
12/12/2017	0.000	12/12/2018	0.000	12/12/2019	0.000
12/13/2017	0.000	12/13/2018	0.000	12/13/2019	0.020
12/14/2017	0.000	12/14/2018	0.000	12/14/2019	0.130
12/15/2017	0.000	12/15/2018	0.000	12/15/2019	0.000
12/16/2017	0.000	12/16/2018	0.000	12/16/2019	0.000
12/17/2017	0.000	12/17/2018	0.000	12/17/2019	0.000
12/18/2017	0.000	12/18/2018	0.000	12/18/2019	0.150
12/19/2017	0.000	12/19/2018	0.000	12/19/2019	0.010
12/20/2017	0.030	12/20/2018	0.000	12/20/2019	0.000
12/21/2017	0.040	12/21/2018	0.000	12/21/2019	0.000
12/22/2017	0.000	12/22/2018	0.000	12/22/2019	0.350
12/23/2017	0.000	12/23/2018	0.000	12/23/2019	0.010
12/24/2017	0.000	12/24/2018	0.000	12/24/2019	0.000
12/25/2017	0.000	12/25/2018	0.000	12/25/2019	0.070
12/26/2017	0.000	12/26/2018	0.010	12/26/2019	0.000
12/27/2017	0.000	12/27/2018	0.000	12/27/2019	0.000
12/28/2017	0.000	12/28/2018	0.000	12/28/2019	0.000
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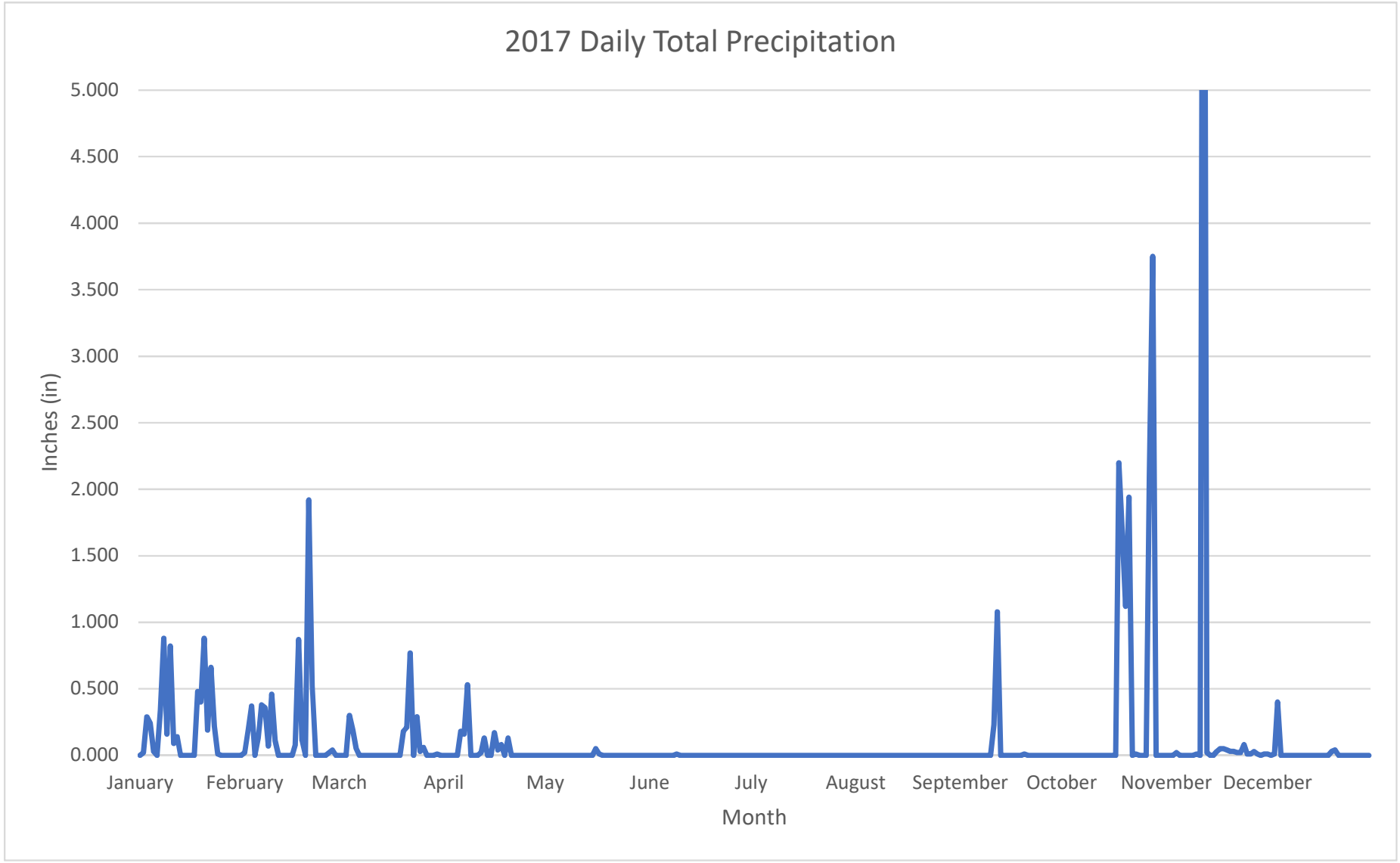
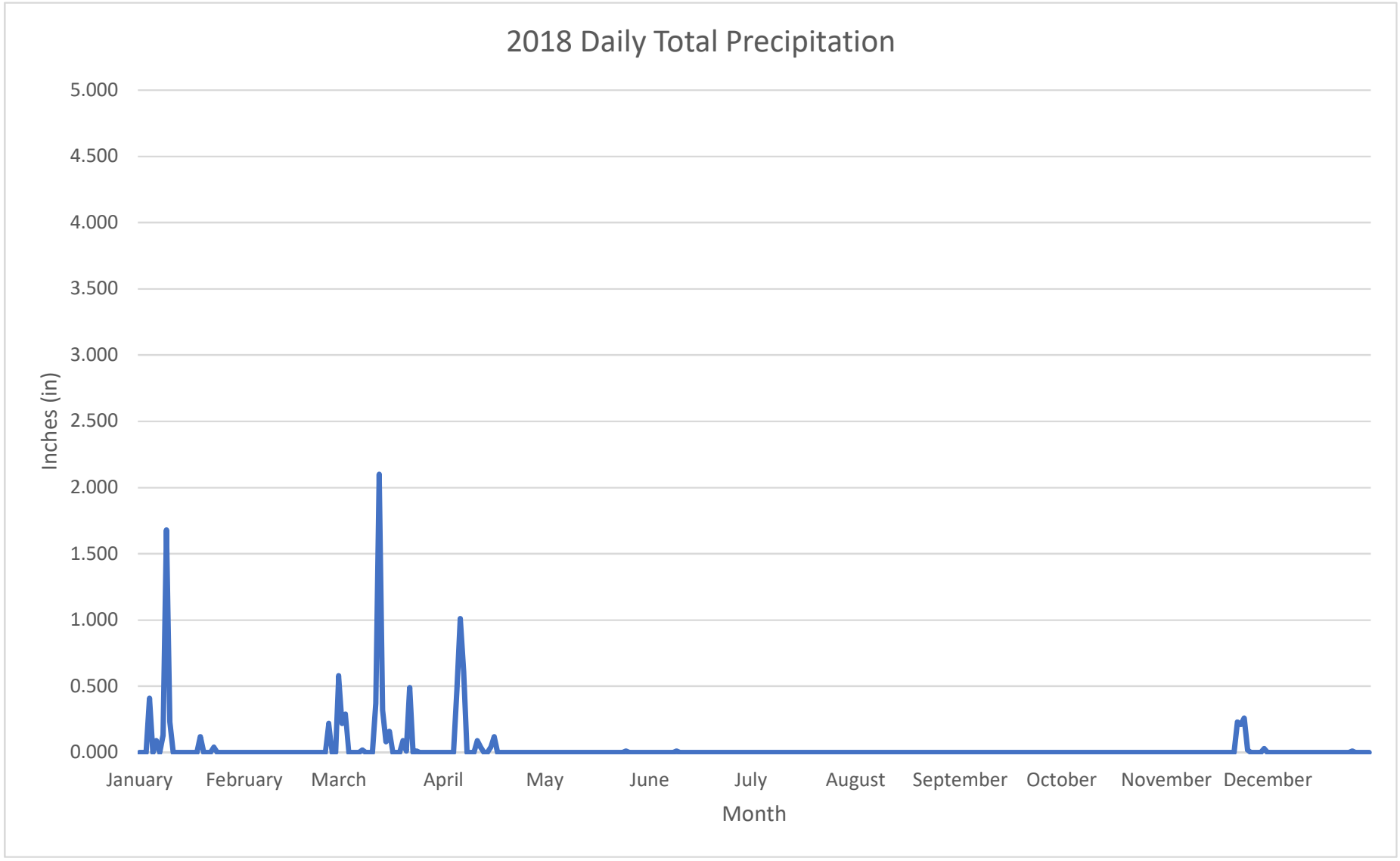
12/30/2017	0.000	12/30/2018	0.000	12/30/2019	0.000
12/31/2017	0.000	12/31/2018	0.000	12/31/2019	0.000

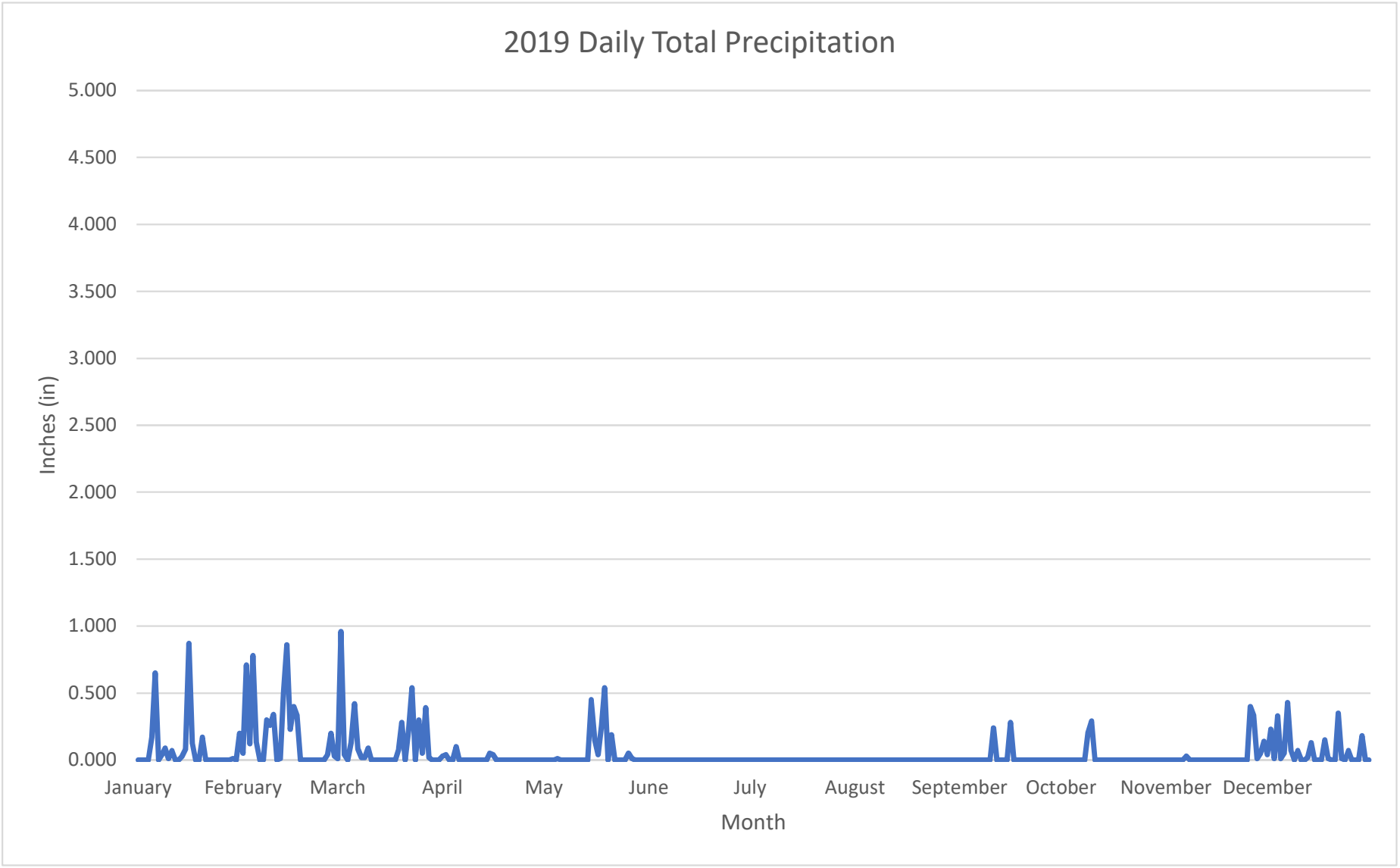
Source: Historical weather data was provided by IDCC from the Newby Island Weather Station. Weather data from www.wunderground.com (Station ID: KSJC) used on a supplemental basis for the following dates: December 11-31, 2017; January 1-24, 2018; and October 5-November 25, 2018. Daily averages of historical weather data based on the time of monitoring.



Source: Historical weather data was provided by IDCC from the Newby Island Weather Station. Weather data from www.wunderground.com (Station ID: KSJC) used on a supplemental basis for the following dates: December 11-31, 2017; January 1-24, 2018; and October 5-November 25, 2018. Daily averages of historical weather data based on the time of monitoring.



Source: Historical weather data was provided by IDCC from the Newby Island Weather Station. Weather data from www.wunderground.com (Station ID: KSJC) used on a supplemental basis for the following dates: December 11-31, 2017; January 1-24, 2018; and October 5-November 25, 2018. Daily averages of historical weather data based on the time of monitoring.



Source: Historical weather data was provided by IDCC from the Newby Island Weather Station. Weather data from www.wunderground.com (Station ID: KSJC) used on a supplemental basis for the following dates: December 11-31, 2017; January 1-24, 2018; and October 5-November 25, 2018. Daily averages of historical weather data based on the time of monitoring.