LANDFILL GAS MONITORING AND CONTINGENCY PLAN

GO EAST LANDFILL/BAKERVIEW, EVERETT,WASHINGTON

Project No.002292

PREPARED FOR:
MARTY PENHALLEGON, P.E
PACE ENGINEER, INC.
11255 KIRKLAND WAY, SUITE 300
KIRKLAND, WA 98033
TELEPHONE: 425 - 827 - 2014

PREPARED BY:
VICTOR O. OKEREKE, PH.D., P.E., DEE, CLSSS
VIKEK ENVIRONMENTAL ENGINEERS, LLC
23309 100TH AVENUE WEST, EDMONDS, WA 98020-5075
TELEPHONE: 206 - 629 - 5934 DIRECT | 206 - 818 - 9104 MOBILE

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Vikek Environmental Engineers, LLC |23309 100th Avenue West | Edmonds, Washington 98145 – 1122 |
E: Victoro@vikek.com | W: www.vikek.com

CONTENTS

1.0 INTRODUCTION 3
2.0 LANDFILL GAS MONITORING PLAN 6
3.0 HEALTH AND SAFETY PLAN (HASP) 11
4.0 REPORTING AND RECORD KEEPING 12
5.0 REFERENCES 13
LFG MONITORING FORM 21

LIST OF ATTACHMENTS

TABLES

Table A.1.1 Perimeter Landfill Gas Probe Locations

Table A.1.2 Perimeter Landfill Gas Probe Purge Times

FIGURES

Figure A.2.1 Landfill Gas Monitoring Locations

Figure A.2.2. Flow Chart for Triggers and Contingent Actions for Perimeter Probe Monitoring

LANDFIL GAS MONITORING FORMS

Figure A.3.1 LFG Probe Monitoring Form

1.0 INTRODUCTION

This Landfill Gas Monitoring and Contingency Plan (LFGMCP or "Plan") was prepared by Vikek Environmental Engineers, LLC (Vikek) to describe the LFG monitoring and contingency plan for the Go East/Bakerview Landfill Closure and Redevelopment Project. The LFGMCP describes the necessary procedures to satisfy applicable permit and regulatory requirements described in Section 1.1 of this Plan..

The project site is located at 4330 108th Street SE, Everett, Washington, and was operated as an excavation and sand reclamation site from 1969 through 1971. Between 1972 and 1977 the landfill operator (Rekoway) accepted wood waste debris that included partially burned trees and stumps, and concrete solid material that were compacted and placed in sealed cells before the site was closed initially in 1978. After reopening in 1979 with GO EAST as the Owner/Operator, the site accepted wood waste placed in enclosed cells from 1979 to 1983, after which the landfill ceased all operations.

Vikek has utilized the best available site data, practices, experience, and judgment to develop this plan. However, the plan may require modifications over time to accommodate changing landfill conditions, changing receptors in areas adjacent to and around the landfill, or other conditions that cannot be fully anticipated. Uncontrolled migration of LFG (particularly methane (CH4)) can result in, loss of life, injury, loss of property, vegetative damage, and intolerable odors. Landfill monitoring includes exposure to explosive gases. Monitoring personnel should be specifically trained in the management and response for situations such as fire or explosion and confined space entry and possess an awareness of changing conditions around the landfill.

1.1 Purpose, Applicability and Regulatory Requirements

Landfill ("LFG, "Methane Gas" or "Gas") Post-closure monitoring (PCM) for the landfill is governed by Washington Administrative Code (WAC) Chapter 173-350-400(11)(a)(ii) and (iv), and 173-350-400(11)(b)(ii).

The implementation of this LFGMCP will begin after the approval of landfill closure activities by the Snohomish County Health District (SHD), and conducted in accordance with the approved Go East Landfill Closure Plan and WAC 173-350-400 (8) unless superseded by Department of Ecology's(Ecology) implementation of Chapter 173-340 WAC (Model Toxics Control Act or MTCA). The SHD approved the Landfill Closure Plan (last updated in January 2018), including its post-closure Operation and Maintenance (O&M) plan in Section 10, Appendix F, and Appendix H. This LFGMCP supersedes any, and all previously approved post-closure landfill gas monitoring plan(s) for this site.

According to the Landfill's Closure plan of January 2018, the landfill Owner is required to retain a qualified professional to oversee the completion the following monitoring actions:

- **Continuous Monitoring of Gas Levels**. Continuous LFG monitoring will be completed for three (3) months of the dry season and for three (3) months of the wet season during the first year following closure. This monitoring could be extended at SHD's discretion, if any unsafe issues with the current low levels of methane are found. This monitoring will occur at four (4) locations within structures connected to the vertical venting pipes located along the west and south side of the landfill (four locations).

- **Perimeter Gas Probe Monitoring.** Methane gas measurements would also be completed on a quarterly basis for two years, prior to removal of the continuous monitoring equipment, from the monitoring well points, located on the landfill perimeter.

- **Home Protection.** The homebuilder will be required to provide gas migration control systems. Homeowners are responsible for gas monitoring in their homes.

The goal of LFG control system LFGMCP is to confirm that the landfill gas remedy is performing in a manner that protects human health and the environment. Specifically, this requires meeting the following LFG criteria defined in WAC 173-350-400(4)(b) and (4)(f)(i)(I) :

- **On-Site Structures**. Methane concentrations inside buildings and structures within the landfill boundary (excluding gas control or recovery system components) must not exceed 1.25 percent by volume, or 25 percent of the lower explosive limit (LEL). There are no on-site buildings or applicable structures at the Go-East Landfill site.

- **Perimeter Gas Probes**. Methane concentrations in soil at the landfill boundary must not exceed 5 percent by volume, the LEL for methane.

- **Off-Site Structures**. The Pollution Control Hearing Board or PHCB report (2019) stated that, "any future homes built within 1,000 feet of the landfill will be required to have gas vapor barriers and gas ventilation". Methane concentrations inside buildings and structures outside the landfill boundary must not exceed 100 parts per million by volume (ppmv).

1.2 Landfill Gas Control System

The LFG control system (LFGCS) is described in the Landfill's Construction Quality Assurance (CQA) Report (PACE Engineers, 2022) and consists of landfill-specific solutions designed to operate separately but be compatible and synergistic in how they control LFG site-wide.

The closed landfill has an engineered final cover constructed of the following layers (from the top); a minimum 12 inches of topsoil, 12 inches of on-site sand, geocomposite, 40 mil textured geomembrane and 6 inches of on-site sand layer. As the gas rises, it will encounter the impenetrable surfaces and travel horizontally to the gravel-filled methane vent trench system located at the perimeter of the closed landfill. The trench was excavated to native soil with variable dimensions to match site conditions and filled with gravel. The trench also contains a 2-inch diameter perforated collection pipe that conveys the gas to one of four manhole structures for continuous gas monitoring. The gas is then conveyed from these structures to one of three discharge pipes located over 100 feet from any lot, and connected to 10-foot-high vent pipes. Additionally, two gravel trenches were constructed at the top of the 3:1 landfill slope , to collect and direct any collected gas to the vent pipes. Twelve gas monitoring probes were installed outside the closed landfill boundary and extends into native soils (Vikek Environmental Engineers, 2022).

1.3 Coordination and Responsibilities

Specific area-wide LFG monitoring roles required for compliance with this LFGMCP are as follows:

1.3.1 Landfill Site Owner

The landfill site owner has overall responsibility and shall retain a qualified professional to oversee the completion of the appropriate gas monitoring actions. All correspondence and questions concerning post closure LFG monitoring at the Go East Landfill should be directed to the Owner listed below.

Marty Penhallegon, P.E
PACE Engineers, Inc.
11255 Kirkland Way, Suite 300
Kirkland, WA 98033
Email; Marty@paceengrs.com
Telephone: 425 - 827 - 2014

1.3.2 Home Builders

Pursuant to permit and regulatory requirements in section 1.1, future homebuilders are responsible for the requisite design and construction of home gas mitigation systems for future homes built within 1,000 feet of the landfill.

Specific design specifications are expected to be defined in future plat and/or building permit approvals from the Snohomish County Building Department, and therefore outside the scope of this plan.

1.3.3 Homeowners

Responsibilities for inspection, monitoring and reporting related to future constructed gas vapor barrier and gas ventilation systems are also expected to be specified in future residential real property transactions pursuant to Washington State Law (RCW 64.06.02). These responsibilities are expected to be in alignment with applicable requirements in the plat and/or building permit approvals from the Snohomish County Building Department. Because homeowner responsibilities are unknown at this time, they are not addressed further in this plan. If the future Snohomish County gas monitoring requirements in offsite buildings include responsibilities for the closed landfill owner(site owner), this plan will be updated accordingly.

2.0 LANDFILL GAS MONITORING PLAN

Monitoring LFG collection systems serves two purposes: (1) performance monitoring within the system to guide its operation and (2) post-construction compliance monitoring to confirm that the system is controlling LFG emissions as required in the remedial/closure plan. The primary goal of perimeter probe monitoring is to evaluate potential lateral off-site LFG migration and the primary goal of home monitoring is to protect human health.

Throughout this section (and consistent with common terminology in LFG discussions), the term "monitoring" will refer to field measurements using calibrated meters to measure gas concentrations at the probes and the continuous collection of gas data using specific equipment described in section 2.2 of this plan.

2.1 Uniform Perimeter Probe Monitoring Procedures

Methane concentrations in soil at the landfill boundary must not exceed 5 percent by volume, the LEL for methane. This criterion will be measured by monitoring LFG probes along the landfill boundary (perimeter probes) on a **quarterly basis** for a **period of two years**, unless otherwise extended by the regulatory and permitting authority. The locations of perimeter probes are shown on **Figure A.2.1** and are summarized in **Table A.1.1.**

2.1.1 Perimeter Probe Monitoring Times

Proper landfill gas monitoring should include sampling during times when landfill gas is most likely to migrate.

Scientific evidence indicates that weather and soil conditions influence the migration of landfill gas. Barometric pressure and precipitation have significant effects on landfill gas migration. **As a result, landfill gas monitoring should be conducted when:**

- Barometric pressure is low following at least 2 hours of falling barometric pressure, with a drop of least 0.25 inches of mercury.
- Soils are saturated.
- During the winter, when the snow cover is just beginning to melt, or when the ground surface is frozen, snow- and/or ice-covered.

2.1.2 Landfill Gas Monitoring Instrumentation

The person using the landfill gas monitoring instrument must understand the principles of LFG control system operation and follow the manufacturer's instructions. This includes calibrating the instrument according to the manufacturer's specifications. Include the following on the top portion of the landfill gas monitoring form **(**See Attachment A.3 for Forms) :

- facility name,
- permit number,
- type and serial number of gas monitoring instrument,
- calibration date of the instrument,
- date and time of field calibration,
- type of gas used for field calibration
- date of landfill gas monitoring event,
- name of sample collector,
- pump rate of instrument being used,
- ambient air temperature, and
- general weather conditions.

2.1.2.(A) LFG Probe Monitoring Equipment

A Landtec GEM™ 2000 (Plus) infrared portable gas analyzer (or equivalent) will be used to monitor probes.

2.1.2.(B) LFG Probe Monitoring Equipment Calibration Procedures

The calibration procedure shown on Table 2.2.1.(B) should be performed in accordance with the manufacturer's manual, and recorded before any probe monitoring, and again after a probe monitoring session. Any changes in conditions as described in the equipment operation and maintenance manuals that requires a re-calibration should be performed and recorded. For example, a change in ambient temperature that would change the instrument temperature would require a re-calibration.

Table 2.1.2.(B) Calibration Procedures

General Steps	
1	Check Battery status. Status should be 100% before calibration.
2	Set up equipment for calibration per instructions in the of GEM™ 2000 operation manual. Note the importance of the order of calibration gases, zero methane, span methane, span carbon dioxide, zero oxygen, then span oxygen.
3	Record date, time. location, operator, temperature, and barometric pressure.
4	Calibrate Landtec GEM™ 2000 (Plus) or equivalent meter using a 4 percent oxygen, span gas and a 50 percent methane/35 percent carbon dioxide calibration gas according to the instrument's instruction manual.
5	Connect the meter to the LFG probe using silicone or polyethylene tubing and filter. Each probe has a labcock or pressure fitting plug with a quick connect.
6	Measure the water level in the gas probe to determine the water level and to confirm that static water is not above the top of the probe screen. If the water level is above the probe screen, then the probe cannot be monitored.
7	Purge the probe until methane, carbon dioxide, and oxygen percentages stabilize, defined as when readings change by less than 10 percent for three consecutive measurements over 10-second intervals.
8	Log results of each calibration step, purge meter before each subsequent calibration step.
9	Evacuate a minimum of one probe volume before recording the final instrument readings. For reference, the GEM flow rate is 300 mL per minute. Table A.1.2 provides a summary of perimeter probe construction details and purging volumes.

2.1.3 Landfill Gas Probe Monitoring Procedure

LFG probe monitoring will be conducted according to the general procedures summarized below: Results must be recorded on the Field Form included **in Attachment 3 (**electronic forms, are also acceptable).

Step		Comments
1	Allow meter to warm up using time logged during calibration or 1 minute whichever is longer.	
2	Check Battery Status.	Record battery status for each set of readings.
3	Read barometric pressure.	Record time, date, location, probe ID, ambient temperature. This information should be entered into GEM™-2000.
4	Inspect probe sampling connections for damage.	Record any damage
5	Zero pressure transducers. Read static pressure of all completions.	Record static pressure in inches water column. Zero transducers before each probe completion reading. Open valve after connecting hose and close valve before disconnecting hose.
6	Connect GEM™-2000 to probe sample port without removing the cap, using tubing and water trap/filter.	Observe clear tubing during sampling. Discontinue sampling procedure if water is seen in tubing, (before reaching filter if possible). Note presence of water in probe and pumping duration. Use boring log to approximate depth to water surface. If possible, measure the water level in the gas probe to determine the water level and to confirm that static water is not above the top of the probe screen**.** If the water level is above the probe screen, then the probe cannot be monitored.
7	Purge the probe until methane, carbon dioxide, and oxygen percentages stabilize, defined as when readings change by less than 10 percent for three consecutive measurements over 10-second intervals (Or a stabilized concentration will not vary more than 0.5% by volume on the instrument's scale). Open the valve and read and record initial and stabilized methane, oxygen, and carbon dioxide concentrations.	Use probe pore volume spreadsheet to determine time to evacuate one pore volume. Within 30-45 seconds after the one pore volume a stabilized result should be available. Oxygen concentration should be at 2% per volume or less to indicate air is not being drawn into the system and providing false readings).
8	Close the valve and disconnect the tubing.	
9	Log results using GEM™-2000 ID on the LFG monitoring data form. If both initial and stabilized methane concentrations are less than 50% of the LEL (2.5% CH4), move to next LFG probe.	Follow instructions in the operations manual. If any methane concentration is greater than 50% of the LEL (2.5% CH4), monitoring personnel should implement the Contingency Plan (Section 2.3.1) and Reporting and Recording (Section 4.0).
10	Complete meter purge cycle before reading next probe completion.	

2.1.4 Criteria for Reduction of Monitoring Locations and Frequency

LFG production will continue to decline over time. A reduction of monitoring frequency may be allowed if the LFG systems are stable and perimeter monitoring results are consistently less than criteria thresholds.

As part of the Annual Report, the Closed Landfill Owner("Site Owner" or "SO") may request reductions in sample locations and/or frequency (on a probe-by-probe basis). The request will include supporting data and rationale. The request will become effective once approved by the SHD and Ecology. Significant changes in individual LFG systems (such as system failure, or a switch from passive to active) may warrant additional sampling as part of their operations.

2.2 Continuous Landfill Gas Monitoring

Continuous LFG monitoring will be completed using field monitors installed in the structures attached to the vertical vent pipes along the west and south side of the landfill (four units total) (see **Figure A.2.1 for locations).** Gas monitoring would be completed continuously for three (3) months of dry season and three (3) months of wet season during the first year following closure. The monitoring will extend longer, at SHD's discretion, if any unsafe issues with methane levels are discovered.

2.2.1(A) Continuous LFG Monitoring Equipment

M2A Transmitter units ,manufactured by RKI Instruments will be used for continuous gas monitoring.

2.2.1(B) Continuous LFG Monitoring Equipment Calibration Procedures

Calibration will be completed as described in the M2A Transmitter Operator's Manual of July 1, 2021**.** Quarterly system calibration and inspection will be completed after the first quarter of operation. When gas migration events are detected, especially those that exceed regulatory thresholds, additional calibration checks would also be completed to check that measurements meet the desired data quality.

2.2.1(C) Continuous LFG Monitoring Procedures

Gas concentration data would be downloaded and system components periodically checked by Vikek Environmental Engineers' field personnel. Measurement data will be checked daily in the first two weeks of operations; and weekly in the following weeks of operation to ensure that "drifting" is not occurring or other anomalous condition caused by factors other than the measurement of combustible gas. The most important period of operation is the one-year period following installation. If gas migration is going to be detected—it is most likely going to be detected during this period (although there are many factors which can effect landfill gas generation and migration).

2.3 Home Monitoring by Property Owners

All new homes within 1000 feet of the closed landfill must have continuous (i.e., operate 24 hours per day, 7 days per week) methane detectors in accordance with the applicable Snohomish County Code. Detailed requirements for methane detectors in homes, and responsibilities for future home monitoring, inspections, maintenance, and reporting will be specified in the future plat and/or building approval requirements and covenants. When these requirements are known and include any for the Site Owner, this Plan will be updated accordingly.

2.3.1 Contingency Actions Related to Landfill Post-Closure Monitoring

If a stabilized methane concentration is greater than 100% of the LEL in a LFG monitoring probe or greater than 25% of the LEL in a facility structure, the Site Owner will perform the urgent actions and mitigation plan described in sections 2.3.1.1 and 2.3.1.2 below. Refer also to the monitoring flow chart for triggers and mitigation actions, included as Figure A.2.2. All LFG monitoring, operations and maintenance personnel must understand planned mitigation actions.

2.3.1.1 Urgent Action Plan

The Site Owner will perform the following actions for the protection of human health and safety:

- Determine nearby potential receptors (facility and off-site structures).
- Perform monitoring in any other facility structure near the monitoring location with high concentration.
- Contact the Owner Fire Department (911). Coordinate evaluation of potentially affected off-site structures with the Fire Department.
- Verbally notify the SHD as soon as practical.
- Investigate and identify the potential source(s) and conduit(s) for LFG migration that may have caused the high concentration (i.e. the path that the LFG may be taking to the monitoring location).
- As appropriate, begin corrective action.

2.3.1.2 Mitigation Plan

Within sixty days of the detection of a high methane concentration, a mitigation plan describing the problem nature, extent, and proposed remedy will be submitted to SHD for approval. Upon approval, the plan will be implemented and a copy will be placed in the operating record. The SHD will also be notified of when the plan has been implemented. An extension may be granted by the SHD on written request and depending on severity of the situation.

3.0 HEALTH AND SAFETY PLAN (HASP)

Maintenance personnel and contractors must follow general health and safety procedures while performing LFG post-closure monitoring or maintenance activities at the closed landfill site. At a minimum, personnel performing routine monitoring or maintenance must wear a high visibility safety vest at all times. If construction work is ongoing on the Go East Closed Landfill LFG system that requires other specific personal protective equipment (PPE), such as a hard hat or steel toed boots, then the additional PPE requirements must be met to complete the inspection and maintenance work. A HASP should be included in the Overall LF post closure plan to guide all persons performing work at the landfill.

4.0 REPORTING AND RECORD KEEPING

The LFG Monitoring Form (see Attachment 3) will be completed for each probe and continuous monitoring events since some information cannot be automatically logged and downloaded. Each form should include the following minimum information to be added to the gas monitoring database downloaded by the GEM-2000 and the M2A gas transmitters:

*Time
*Date
*Location
*Probe ID
*Equipment used and serial numbers
LFG Monitor's full name
Calibration sheet reference number
Sample pump time and estimated volume
Battery Status
*Barometric pressure
*Ambient Temperature
*Gas Temperature
*Methane percent by LEL and volume
*Oxygen percent by volume
*Carbon Dioxide percent by volume
*Static pressure
*Sample flow rate and differential pressure
*Physical condition of probe
*Water level or occurrence of water during sampling
*Problems encountered during sampling
(* Items with an asterisk can be logged automatically in the GEM-2000 or equivalent meter).

The results of the LFG monitoring will be reported annually to SHD in the landfill post closure monitoring Annual Report, which is due on March 31 of each year for the previous calendar year's post closure activities. The Site Owner is responsible for complying with the necessary site wide post closure monitoring documentation and submittal of the related Annual Report. All records, reports, documents, and underlying data relevant to the implementation of this LFGMCP shall be maintained by the Site Owner for a period consistent with requirements in the Site Post Closure Care requirements.

5.0 REFERENCES

1. LANDTEC (2008). GEM 2000/2000 Plus Operation Manual for Serial Numbers 10000 and up.

2. Missouri Department of Natural Resources (2014). Sampling of Landfill Gas Monitoring Wells – PUB2053. Waste Management Program Fact Sheet.

3. M2A Transmitter Operator's Manual (2021). Part Number: 71-0305RK, Revision: S, Released: 7/1/21. RKI Instruments, Inc. www.rkiinstruments.com

4. PACE Engineers (2018). GO East Landfill Closure Plan. Appendix F, Post -Closure Operation Plan.

5. PACE Engineers(2022). GO East Landfill Construction Quality Assurance Report.

6. Pollution Control Hearing Board (2019). Report No.8 – 042.

7. Vikek Environmental Engineers, LLC (2022). Technical Memorandum – Landfill Gas Probe Installation, GO East Landfill/Bakerview, Everett, Washington.

8. Washington State Department of Ecology (Ecology) . Limited Purpose Landfills WAC 173-350-400 . https://apps.leg.wa.gov/WAC

9. Washington State Legislature. Improved Residential Real Property. Revised Code of Washington (RCW), Title 64, Chapter 64.06, Section 64.06.020. https://apps.leg.wa.gov/RCW

ATTACHMENT A.1

TABLES

Table A.1.1 - Perimeter LFG Probe Locations

LFG Probe	Adjacent to Off-Site Lot[1]	Northing	Easting
GP -1	Yes, NE Perimeter	330692.00	1312479.49
GP -2	Yes, East Perimeter	330543.64	1312353.98
GP -3	Yes, East Perimeter	330505.98	1312288.39
GP -4	Yes, SE Perimeter	330447.39	1312184.5
GP -5	Yes, SE Perimeter	330400.16	1312110.73
GP -6	Yes, South Perimeter	330424.41	1312030.73
GP -7	Yes, SW Perimeter	330470.05	1311942.01
GP -8	Yes, SW Perimeter	330485.30	1311891.07
GP -9	Yes, West Perimeter	330639.76	1311853.74
GP -10	Yes,NW Perimeter	330.729.69	1311928.98
GP -11	Yes,NW Perimeter	330817.39	1311974.87
GP -12	Yes, NW Perimeter	330913.46	1312013.66

Notes:

1. Adjacent off-site Lots are shown on Figure A.2.1

Abbreviations:

LFG or Gas: Landfill gas

Table A.1.2
Perimeter LFG Probe Purge Times

Gas Probe	Top of Monument Elevation (ft)	Ground Surface Elevation (ft)	Stickup (AGS) (ft)	Length of Perf Pipe (ft)	Total Length Pipe (ft)	Volume of Pipe (ft^3)	Sampling Time (sec) for GEM™2000 1 Purge Volume Time at 300 cc/min pump (min)
GP -1	222.35	220.40	1.95	5	16.85	0.096	9.04
GP -2	229.39	225.50	3.89	5	12.89	0.074	6.91
GP -3	230.56	226.50	4.06	5	13.56	0.078	7.27
GP -4	230.97	226.30	4.67	5	15.97	0.091	8.57
GP -5	232.62	230.50	2.12	5	12.62	0.072	6.77
GP -6	237.84	237.00	0.84	5	21.84	0.125	11.71
GP -7	242.43	238.80	3.63	5	13.63	0.078	7.31
GP -8	243.22	241.20	2.02	5	12.22	0.070	6.55
GP -9	258.45	257.60	0.85	5	10.00	0.057	5.36
GP -10	260.16	262.70	-2.54	5	17.50	0.100	9.39
GP -11	261.74	261.90	-0.16	5	17.50	0.100	9.39
GP -12	261.57	262.30	-0.73	5	30.00	0.172	16.09

Notes:

1" dia IPS Sch 40 = 1.049
AGS = above ground surface
BGS = below ground surface
Ground surface elevations shown are not final, and will be 1-foot higher after completion of final grading.

Pump Flow Rate at:

200.00	cm3/min	=	0.42	ft3/hr.
300.00	cm3/min	=	0.64	ft3/hr.

ATTACHMENT A.2

FIGURES

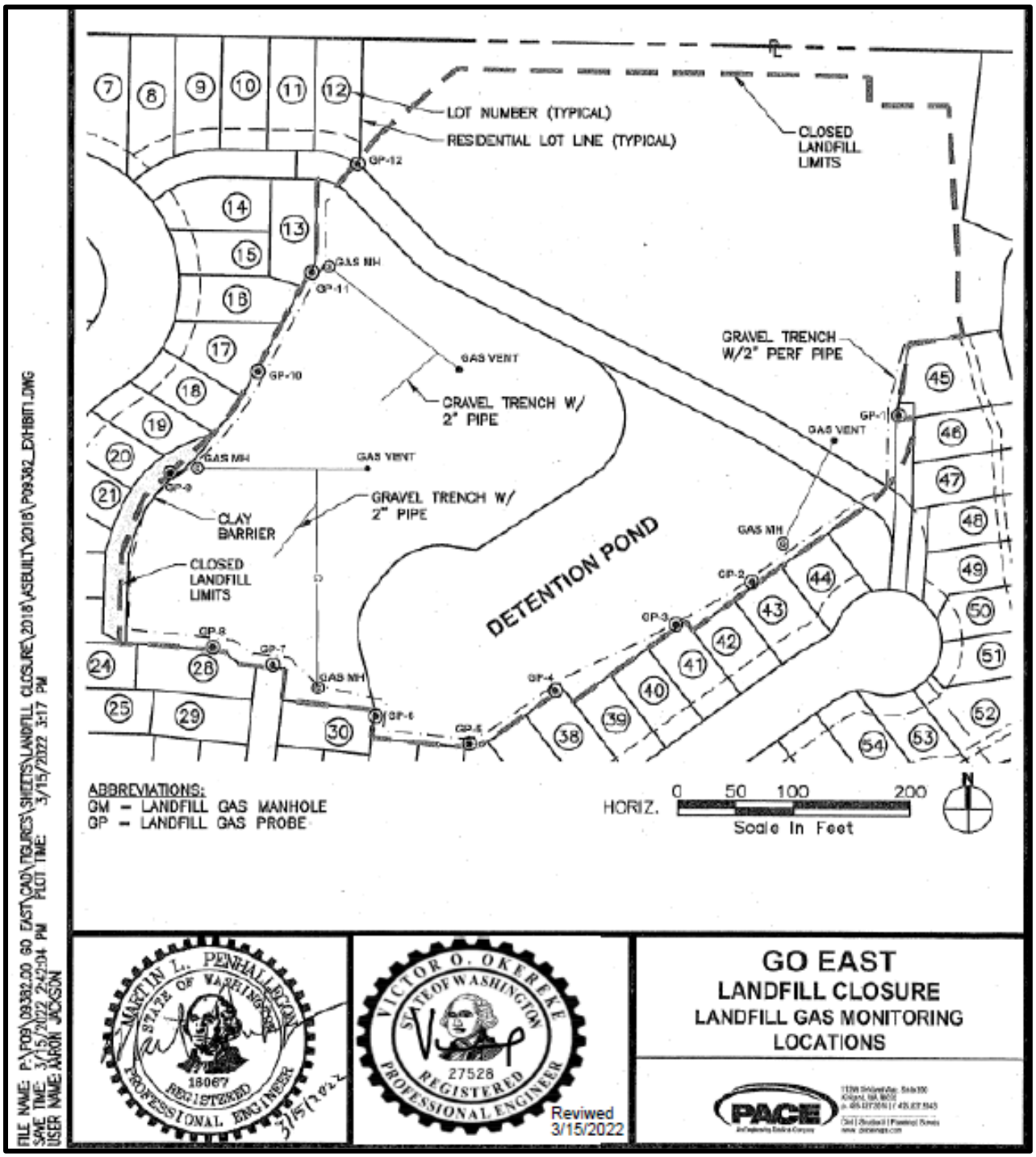
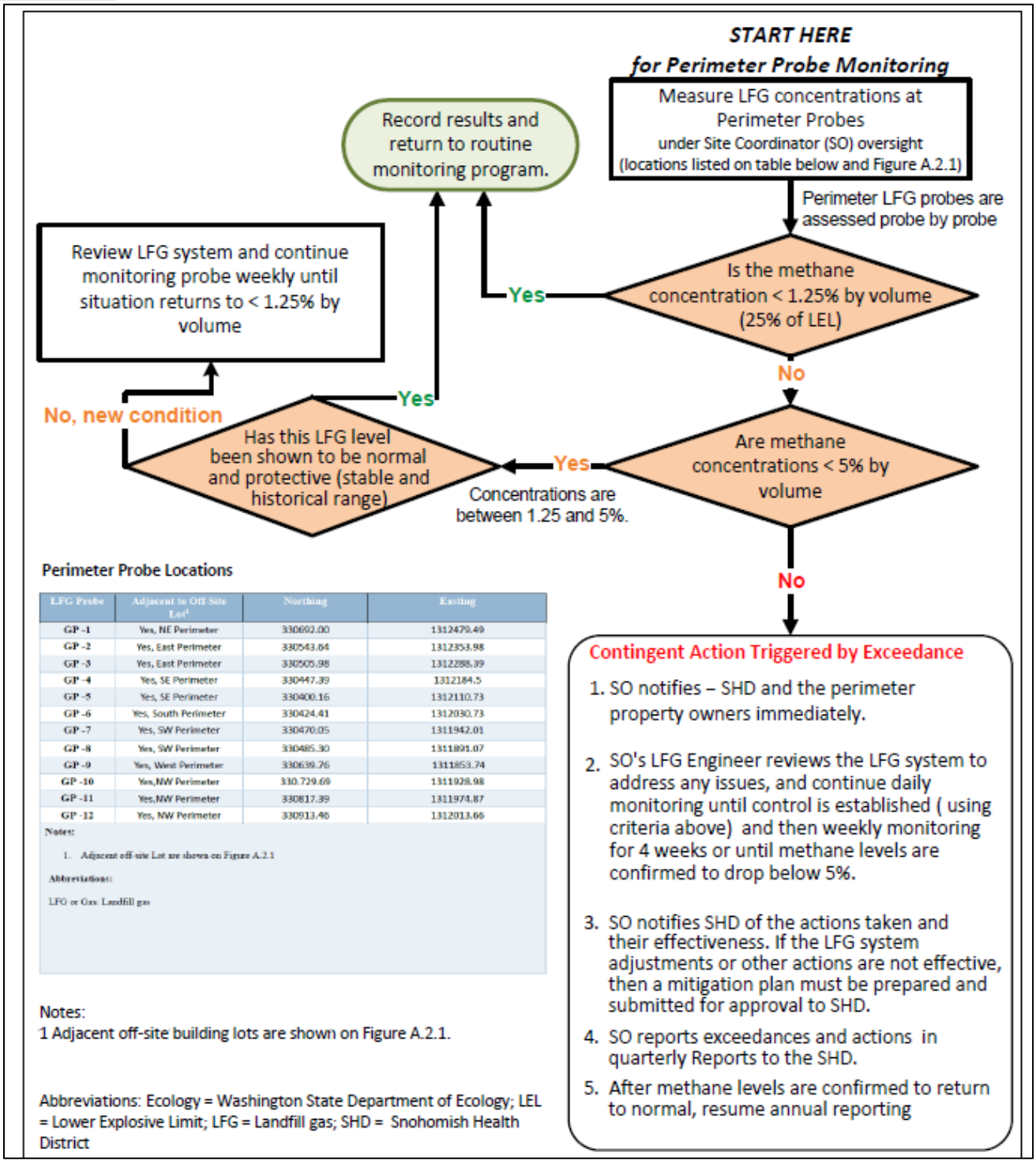


FIGURE A.2.1 : LANDFILL GAS MONITORING LOCATIONS



Perimeter Probe Locations

LFG Probe	Adjacent to Off-Site Lot[1]	Northing	Easting
GP -1	Yes, NE Perimeter	330692.00	1312479.49
GP -2	Yes, East Perimeter	330543.64	1312353.98
GP -3	Yes, East Perimeter	330505.98	1312288.39
GP -4	Yes, SE Perimeter	330447.39	1312184.5
GP -5	Yes, SE Perimeter	330400.16	1312110.73
GP -6	Yes, South Perimeter	330424.41	1312030.73
GP -7	Yes, SW Perimeter	330470.05	1311942.01
GP -8	Yes, SW Perimeter	330485.30	1311891.07
GP -9	Yes, West Perimeter	330639.76	1311853.74
GP -10	Yes,NW Perimeter	330.729.69	1311928.98
GP -11	Yes,NW Perimeter	330817.39	1311974.87
GP -12	Yes, NW Perimeter	330913.46	1312013.66

Notes:
1. Adjacent off-site Lot are shown on Figure A.2.1

Abbreviations:
LFG or Gas: Landfill gas

Notes:
1 Adjacent off-site building lots are shown on Figure A.2.1.

Abbreviations: Ecology = Washington State Department of Ecology; LEL = Lower Explosive Limit; LFG = Landfill gas; SHD = Snohomish Health District

FIGURE A.2.2: FLOW CHART FOR TRIGGERS AND CONTINGENT ACTIONS FOR PERIMETER PROBE MONITORING ACTIONS

ATTACHMENT A.3
LFG MONITORING FORMS

Vikek Environmental Engineers, LLC |23309 100th Avenue West | Edmonds, Washington 98145 – 1122 | E: Victoro@vikek.com | W: www.vikek.com

Table A.3.1 – LFG Monitoring Form

LFG MONITORING FORM		
Facility Name: Permit Number:	Facility Address:	
Date of Sampling:	Time of Sampling: Start Finish	
Gas Meter Type and Serial Number:	Date of Next Full Calibration: Last Field Calibration Date:	
Monitoring Personnel:	Weather:	Barometric Pressure (in. or mm Hg): Mean Temperature: Weather Conditions:
Gas Meter Sample Pump Rate:	Sample Pump Time (sec or min):	Pore Volume (cc):

Results

Probe #	Initial% LEL	Stabilized % LEL	% CH_4 (Vol.)	% O_2 (Vol.)	% CO_2 (Vol.)	% H_2S (Vol.)	NOTES

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LFG MONITORING FORM							

Note: If needed, attach additional data forms

General Comments:

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. I am aware that there are significant penalties for making any false statement, representation, or certification.

_____ _____

SIGNATURE TITLE

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