



# 2025 Controlled Release Experiment Program - Landfill

## Safety Protocol

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### SAFE WORK ON THE PETROLIA LANDFILL BACKGROUND INFORMATION

This document has been modified from the Vancouver landfill safework protocol and describes the basic hazards associated with working at the Petrolia landfill site.

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## **External Emergency Contacts**

- Ontario Emergency Response - 1-877-898-7222
- Northern Ontario Response - 1-807-939-2994
- Quebec Response -1-888-922-3330
- Western Canada Response - 1-877-244-9500

## **References**

- Environmental Protection Act Regulation 347
- Environment Assessment Act Regulation 334
- Occupational Health and Safety Act
- TC Energy Project Site specific safety plan

## **Nearest Hospital**

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## **Emergency and First Aid Response**

An incident may be an emergency or crisis if it:

- Is escalating out of control;
- Threatens to harm or alarm staff, customers, or the community;
- Endangers or threatens the security of facilities; or
- Puts the environment at risk.

### **Personal Emergency Procedures**

Each employee must be aware of safety procedures in his/her normal work place and any other required work place. This includes the following:

- Personal safety procedures to protect from injury and harm.
- Evacuation and muster procedures.
- Facility re-entry procedures.

If an emergency occurs while Landfill staff are at work, staff should:

**1. Protect Themselves**

Follow safety procedures for personal safety to protect from injury and harm. Request or obtain emergency assistance, if needed.

**2. Assist Co-workers**

Follow safety procedures to assist co-workers with protection for personal safety and protection from injury. Request, provide, or obtain emergency assistance, if needed.

**3. Contact a Supervisor**

Immediately check in with the Supervisor. Do not leave without notifying the Supervisor.

**4. Check on Families**

If the emergency extends beyond the facility, (e.g., earthquake) the Landfill will provide an opportunity for families to be contacted to determine their safety and status. In some

circumstances, communication and travel may be severely restricted and contact will be delayed. During this time, staff should continue with emergency assignments.

**5. Assume Emergency Response Assignments**

Report to the test center or to your assignment in the Landfill's Emergency Response Plan or as directed by the person in charge when you arrive. Staff with no assignments are to leave emergency contact numbers to make arrangements for reporting back to work when needed.

## First Aid

If First Aid is required, contact the Landfill First Aid attendant. If a medical emergency involves a person down in an area where Landfill gas may be present, the Emergency Response Procedures for TABLE 1: Important LFG Characteristics

Compound	Important Gas Concentrations	Comments
Explosive Gas	Less than 10% LEL <sup>(1)</sup>	To control the risk of explosion, explosive gas concentrations are to be maintained at less than 10% of the lower explosive limit (LEL) at all times in the work area.
Methane	Less than 1,000 ppm or 0.1% by volume <sup>(1)</sup>	Methane concentrations in the breathing zone are to be maintained at less than 5,000 ppm or 0.5% by volume at all times (Excursion Limit) and for an 8 hour day (TWA), must be below 1,000 ppm. If all of the explosive gas is methane, 1,000 ppm of methane is equivalent to 2% LEL.
Oxygen	19.5% to 23.5% <sup>(1)</sup>	Oxygen concentrations below 19.5% represent an oxygen-deficient atmosphere. The ambient atmosphere has an oxygen concentration of 20.9%.
Hydrogen Sulphide	Less than 5 ppm <sup>(1)</sup>	Hydrogen sulphide is immediately dangerous to life and health (IDLH) at a concentration of 100 ppm. WorkSafe BC's Ceiling Exposure Limit for hydrogen sulphide is 10 ppm. Hydrogen sulphide concentrations should be maintained at less than 5 ppm to reduce the risk of reaching the ceiling limit of 10 ppm and thereby having an exposure. If hydrogen sulphide concentrations exceed this level, work procedures should be reviewed to ensure that site personnel are adequately protected. At elevated concentrations, hydrogen sulphide gas will deaden your sense of smell within minutes. You can smell hydrogen sulphide at concentrations less than 1 ppm. The smell is often described as being like rotten eggs. Most people can smell hydrogen sulphide at concentrations below the detection limit of monitoring instruments.

Note: <sup>(1)</sup> Personal Gas Detectors shall be set to alarm when gas concentrations exceed the gas concentrations identified in Table 1. If the monitor's alarm sounds, evacuate the work area immediately and notify the Landfill Gas Technician, Manager, or designate.

## **Safety Precautions**

The following safety precautions shall be followed with respect to Landfill gas:

1. Do not smoke anywhere on the Landfill.
2. Ensure that all Personal Gas Detectors are in good working order and are bump tested daily prior to use. If bump testing identifies that the Personal Gas Detector is not working within its tolerance limits or if the equipment is outside of its calibration period, it shall be removed from service immediately. Personnel shall be trained in the use and limitations of the Personal Gas Detectors used.
3. If possible, stand upwind of wells or any other Landfill gas works when conducting work in or around the Landfill gas collection system. If an accidental or uncontrolled release of Landfill gas is believed to have occurred near your work area, attempt to remove yourself from the area by taking a path that is crosswind from the source and attempt to get upwind if it is determined to be safe to do so.
4. If a hydrogen sulphide odour is detected and you do not have a hydrogen sulphide detector in good working condition, you should remove yourself from the area of concern and notify the Landfill Gas Technician, Manager or designate.
5. Be aware of other people present in your work area and consider the potential hazards of your respective activities.

## **Hazards**

This section identifies some key hazards that may be associated with the LFG system and general safety precautions for these hazards.

### ***Explosion***

Landfill gas is primarily composed of methane and carbon dioxide, of which methane is a potential explosion hazard. A mixture of 5% to 15% methane in air will explode if ignited. A concentration of 5% methane in air, is the "lower explosive limit" (LEL), and concentrations equal to or greater than the LEL are considered hazardous. To add a margin of safety, this Guideline considers that concentrations greater than 20% LEL may be associated with still higher concentrations, exceeding the LEL. Therefore, methane concentrations greater than 20% LEL warn of conditions which could be potentially hazardous, and gas control systems should be designed to maintain concentrations below this level. Based on the LEL, the maximum allowable methane concentration would be 0.5%, however, methane also has effects on the nervous system and the maximum 8 hour average concentration is 1,000 ppm (0.1%), with a 30 minute Excursion Limit of 3,000 ppm (0.3%) and maximum Excursion Limit of 5,000 ppm (0.5%).

This hazard is mitigated by prohibiting smoking, not allowing open flames or hot work to proceed near the LFG collection system without an approved Safe Work Procedure, identifying and clearing all buried services prior to any digging or other subsurface penetrations, and by following safe work procedures. Sparks due to static electricity (e.g., cutting high-density polyethylene pipes) shall be mitigated by grounding.

### ***Oxygen-Deficient and Oxygen-Rich Environments***

The two major constituents of LFG, methane and carbon dioxide, can displace oxygen and create an oxygen-deficient atmosphere. In addition, oxygen-deficient environments may exist in confined spaces, ditches and depressions. The release of some compressed gasses from a cylinder can also displace oxygen. An oxygen-deficient atmosphere can result in loss of consciousness and possibly death.

Oxygen-rich environments will not typically be present on the Landfill site. However, certain work process, such as welding, may require the use of oxygen, potentially creating an oxygen-rich environment.

Occupational Health and Safety Act for Industrial Establishments require that working space oxygen concentrations be maintained above 19.5% <sup>1</sup>.

This hazard shall be mitigated by monitoring oxygen levels of confined spaces, ditches and depressions when working in these spaces and by moving away and upwind of potential uncontrolled LFG discharge sites. If working near a controlled LFG discharge site, workers shall monitor oxygen levels and try to work upwind of the discharge or install intrinsically safe ventilation fans to introduce fresh air into the space.

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<sup>1</sup> The Occupational Health and Safety Act for Industrial Establishment requirement for maintaining oxygen level above 19.5% (Clause 138 of OHS act).

### ***Hydrogen Sulfide***

Hydrogen sulfide (H<sub>2</sub>S) is a toxic gas and has often been described as having an odour like rotten eggs. Hydrogen sulfide can be detected by the sense of smell at extremely low concentrations. However, olfactory fatigue can occur very quickly, and no odours may be detected. The sense of smell shall not be relied on as an indicator of the presence of H<sub>2</sub>S.

Occupational health and Safety Act Regulation 833 (Control of Exposure to Biological or Chemical Agents) requires that the time-weighted average limit (TWA) of H<sub>2</sub>S be maintained below 10 ppm in the working airspace. Furthermore, a short-term exposure limit (STEL) or Ceiling Limit (C) of 15 ppm must also be maintained. Excessive H<sub>2</sub>S concentrations can result in irritation of the mucus membranes, breathing problems, nausea, and possibly death.

This hazard shall be mitigated by moving away and upwind of potential uncontrolled LFG discharge sites. If working near a controlled LFG discharge site, personnel shall monitor hydrogen sulfide levels and try to work upwind of the discharge or install intrinsically safe ventilation fans to introduce fresh air into the space.

### ***Trips and Falls***

Landfill work will expose operators to uneven terrain, exposed piping, or other trip and fall hazards.

This hazard shall be mitigated by instructing personnel to be aware of such hazards, marking or removing such trip and fall hazards where practical, and by using approved footwear.

### ***Hot Surfaces***

Some equipment, such as the flare stacks, generates high temperatures that can cause bodily harm if contacted by a worker. In some circumstances, the blowers and motors may become hot.

Surfaces that are frequently hot shall be identified by warning signs and shall be isolated by guards to prevent contact, whenever practical. Infrared thermometers can be used to confirm surface temperatures.

### ***Moving Parts***

Machinery and equipment having moving parts can cause bodily harm if a person, their clothing, hair, jewellery, or other objects come in contact with it.

Moving parts shall be identified and sufficiently guarded with fixed or movable guards. If a movable guard is used, an interlock switch shall be installed so that the moving parts of the machinery are stopped immediately when the guard is lifted.

### ***Electrical Equipment***

Electrical equipment and power lines can result in electrical shock, electrocution, and fire hazards. These hazards become significantly greater when personnel are working near this equipment without appropriate care and attention.

All electrical equipment shall be properly maintained in good condition. Only qualified personnel with appropriate training and certification shall be allowed to work on or near energized electrical equipment.

### ***Heavy Lifting***

Lifting objects improperly can result in breaks and strains. The frequency of injuries can be reduced by using administrative and engineering controls, and by modifying work procedures. Engineering controls include improved design, limiting loads and using mechanical devices to lift and transport objects when possible. To minimize the impact of heavy lifting, personnel should warm up before lifting heavy objects, bring loads close to their body, keep their backs straight, and use legs to lift when possible.

### ***Noise***

Elevated noise levels have been identified near generators and inside the compressor building. Personnel entering the compressor building and near generators shall use hearing protection that is at least Grade 2 or Class B hearing protection device or better, as identified by CSA Standard Z94.2-02, Hearing Protection Devices - Performance, Selection, Care and Use. In addition, warning signs (Caution - Noise Hazard - Hearing Protection shall be worn in this area) shall be posted if applicable.

Elevated noise levels may also be present when working around heavy equipment.

### ***Heavy Equipment and Vehicles***

Heavy equipment and vehicles can be encountered throughout the Landfill and collisions with such vehicles are a potential hazard. Excavators, backhoes, and cranes may have booms or projecting parts that can cause impacts.

These hazards can be mitigated by personnel wearing high-visibility clothing, avoiding working near such equipment where possible, ensuring eye contact with the machine operator, never crossing the path of a piece of machinery until it has come to a complete stop (even with eye contact), and using warning cones when working near roadways or machinery.

Personnel operating vehicles and equipment on site shall do so in a controlled manner, adhering to all posted speed limits and directions.

## ***Fire***

Fire can be a significant hazard on site due to the use of methane gas and working in a landfill gas abundant area. The LFG can be ignited by an open flame or spark. In addition, the high-density polyethylene (HDPE) pipe, wood posts and refuse in the Landfill are all potentially flammable if ignited. Refuse in the Landfill can undergo spontaneous combustion if excessive air is drawn into the Landfill by applying excessive suction in individual LFG extraction wells.

This hazard is mitigated by prohibiting smoking, not allowing open flames or hot work to proceed near the LFG collection system without an approved Safe Work Procedure, and by following safe work procedures. Sparks due to static electricity (e.g., cutting high-density polyethylene pipes) shall be mitigated by grounding.

## ***Compressed Gas***

Compressed gas can cause bodily injury due to the low temperature of the discharging gas and the gas can displace oxygen resulting in an oxygen-deficient atmosphere. The low temperature can be transferred to valves or pipes that may be exposed. If damaged, a cylinder can act as a projectile and if involved in a fire can explode.

Gas cylinders shall only be stored in identified and secured locations, such as an identified area in the Flare Station compound. Cylinders shall be secured by a chain in an upright position wherever practical or secured in a horizontal position. Gas cylinders temporarily stored in the field shall be flagged and cordoned with traffic cones.

## ***Buried, Overhead and At-Grade Pipelines or Power Lines***

Buried, overhead or at-grade LFG pipes, condensate pipes, leachate pipes, and power lines exist on the site. These buried, overhead or at-grade utilities can be a hazard if they are damaged.

No excavation or subsurface drilling or penetration work shall take place without first locating the buried pipes, and power and/or communication lines that may exist and without the supervision of the Landfill Gas Technician, Manager or designate.

## Emergency Organization and Responsibilities

### Resources (Personnel and Equipment)

Fluxlab staff will be always present during equipment setup and controlled release. Safety vests and steel toe boots will be required by participants and staff when working on site. Furthermore, fire extinguishers will be placed every 50 m of the length of the pipeline assembly. Staff working near release points will be provided with personal gas detectors.

### ***Preventative measures for accidental ignition causing fires or explosion***

- Design elements to avoid accidental ignition or gases or nearby combustibles
  - Quick dispersal.
    - The release area will be an open windswept area with little chance for gases to “pool”
    - Point source release points will be aboveground, on the surface, maximizing dispersion in air to quickly reduce concentrations near the orifice
  - Combustibles. Combustibles onsite will be kept to a minimum.
    - The entire landfill surface has been mowed for the experiment.
    - Prior to installation of our release equipment, the grass within 1 m of our equipment will be cut to stubble.
    - Grass within 5 m of any orifice will be cut to stubble.
  - Equipment Ratings. Use ATEX-rated equipment
  - Visibility. The entire suite of release equipment will be visible to release experiment staff
  - Spacing from other landfill gas handling pipework. Clear of other landfill surface plastic tubing and wells. Maintain a distance of at least 10 m from other landfill surface piping and gas handling.
  - Release orifices will be iron pipe for a minimum 5 m on either distance of any orifice
  - All plastic tubing will be buried 40 cm underground.
- Operating practices to avoid ignition
  - No ignition sources.
    - For those staff operating the experiment, no smoking will be allowed onsite, and no sparking tools or electronics will be allowed within 25 m of the experimental equipment when the site is pressurized
  - Controlled access.
    - Personnel performing surface emission measurements will be allowed to access release area on foot if surface emission validation is part of their regular work practice. All personnel accessing release area will be wearing a personal gas detector. Personnel accessing release area will be accompanied by a FluxLab staff member and handheld transceivers will be provided which can be used to contact onsite members near the PRS trailer in case of emergencies.
    - No sparking airborne devices (drones etc) will be allowed within 10 m of release sources
    - The landfill is already closed to the general public
  - Leak tests will be performed prior to releases
  - Continuous Supervision
    - Experiment staff will continuously watch for leaks in the system when pressurized
    - Experiment staff will continuously watch for anomalous conditions during the releases

- Design to allow rapid shutoff
  - The pipeline system will incorporate remote controlled ATEX-rated flow controllers and valves that also function as lock-off valves to each orifice and can be closed within a couple of seconds of spotting a problem in the supervised
  - We will continuously have an operator near the main gas source who can shut off the entire system within couple of seconds
- Fire extinguishers every 50 m
  - In the highly unlikely event of a grass fire, we will position fire extinguishers every 50 m
  - Staff will be positioned nearby to reach any part of our controlled release equipment within 1 minute

#### ***Preventative measures for asphyxiation***

- Personal gas detectors will be made available for staff working onsite
- Wind socks or flags will be available to assist with tracking wind direction

#### ***Preventative measures for uneven surface for staff***

- Personnel walking on landfill surface will be wearing steel toe boots
- Flagged walking path will be made available for accessing temporary pipeline

## **Emergency Response**

These procedures provides step-by-step direction to facility staff on how to respond to potential hazards.

#### ***Accidental ignition causing fires, explosion or uncontrolled gas release***

- If an area or structure at the landfill must be evacuated due to a fire, gaseous, or other situations, staff onsite will be evacuated. Staff will notify others and exit the facility via the closest exit and will proceed to a designated muster point.
- The designated muster point is to be designated for each emergency according to the nature and the location of the emergency and a safe exit route, A muster point must not be used when it is unsafe.
- Notify site supervisor and call emergency services (911)
- Staff must not re-enter site unless authorized by a responding emergency personnel.

#### ***Asphyxiation***

- If a staff member displays symptoms of asphyxiation (i.e. shortness of breath, coughing, inability to speak etc.) , they will be removed from the area and first aid will be administered by a certified staff onsite.
- Notify site supervisor and call emergency services (911)

#### ***Uneven surface for staff***

- In the event of a twisted/sprained ankle, affected staff member(s) will be removed from site and first aid will be administered by a certified staff member.
- Notify site supervisor and call emergency services (911) if required

#### ***Soil Contaminants***

- Report any potential or detected soil contamination to the site supervisor.

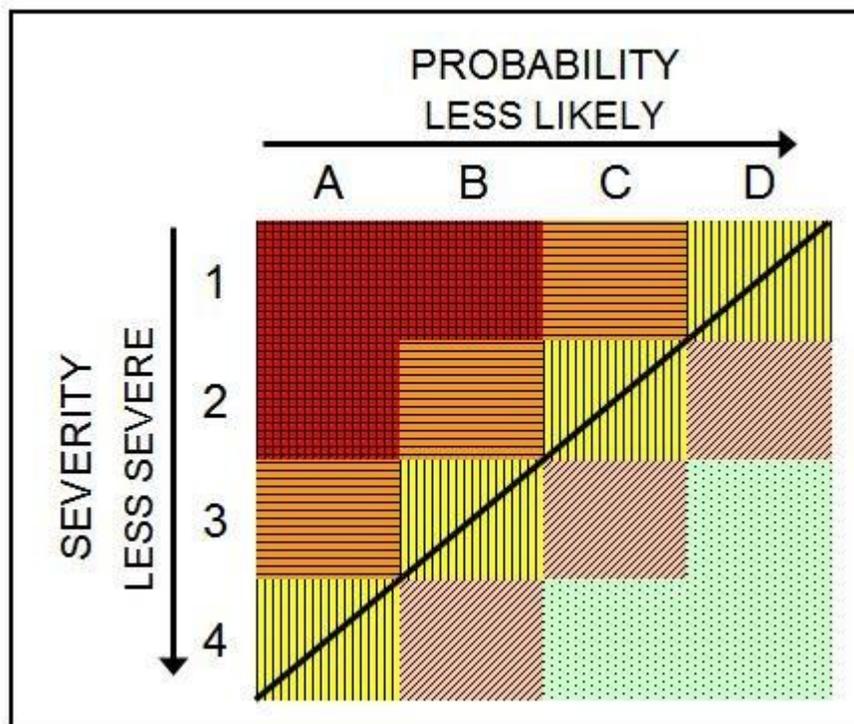
### 3.1 Evacuation Procedures

In the event of an emergency, all staff will be required to congregate at the primary muster point shown in the figure below. All staff must be accounted for by referencing a staff list. Emergency services (911) must be notified followed by site supervisor.



## Hazard Assessments

Hazard Assessments in the Safe Work Procedures have been developed using the following method. More information is included in the Hazard Assessment SWP.



Health and Safety Program Risk Matrix			
Probability Scale	Key Words	Typical Frequency Expectation	
A	Likely to occur	Once per month	
B	Probable over time	Once per year	
C	Possible over time	Once per 10 years	
D	Remotely possible	Greater than once per 40 years	
Severity Rank	Injury	Odour	Cost Range
1	Fatality	Shut Down > 1 week; off-site odour	\$300,000+
2	Lost time injury	Shut Down 2 days to 1 week; potential off-site odour	\$100K to \$300K
3	Reportable injury	Shut Down 1 to 2 days; local odours only	\$30K to \$100K
4	Minor injury	Shut Down < 1 day; no odour	<\$30,000
Severity considers a range of conditions for employees, the public, other affected parties and costs. There is no assumed equivalence between aspects with the same severity; they reflect relative severity within the set of conditions.			

## Personal Protective Equipment

Personal protective equipment (PPE) is essential to ensure the safety of personnel working on or near the LFG management system. Equipment should be properly selected, used, inspected before use and maintained in accordance with manufacturers' requirements. Any equipment that is damaged or no longer provides adequate protection shall be repaired or replaced immediately. Unusable equipment shall be marked as unusable and disposed of to prevent reuse. Personnel using PPE should be trained in its proper selection, use, and limitations. PPE shall be CSA or ULC approved, as applicable. The PPE shall be stored at the Landfill and be readily available when required.

Personnel shall use personal protective equipment when working on site. Personnel shall use high visibility apparel and above-the-ankle footwear with an external green CSA patch whenever on the site. The PPE required in the LFG SWPs is further described below.

### ***High-Visibility Clothing***



Personnel who conduct outdoor tasks shall wear high-visibility clothing that meet the type 1 (i.e., vest, shirt or other similar garment worn on the torso with a fluorescent background and attached visibility enhancing trim) or type 2 (i.e., jacket, coat, coverall or other garment with a bright coloured background and attached visibility enhancing trim)

### ***Steel-Toe Boots***



Above-the-ankle steel-toe (or equivalent) boots that have puncture resistant soles and adequate ankle support shall be worn by personnel conducting outdoor tasks for physical protection against falling objects, punctures and strains. Steel-toe (or equivalent) boots shall be approved under CSA-Z195-M92 and shall be Grade 1, with an external green CSA

triangle prominent on the boot for identification purposes.

***In some instances, it may be necessary to immerse feet in leachate or condensate. If this is the case, boots shall meet the standards above as a minimum, and shall also be resistant to influxes of moisture (e.g., rubber).  
Eye Protection***



Eye protection approved under CSA Standard CAN/CSA-Z94.3-92 shall be worn by personnel working in any locations where the potential of eye injury exists by splashing leachate or condensate, projectiles, gases, or vapours. Common types of eye protection are safety glasses and safety goggles. Safety glasses are suitable for protection from particulates.

Safety goggles are suitable when there is a risk of splashing or vapours of a corrosive substance. Personnel who wear corrective lenses can select prescription safety glasses, goggles or approved tempered glasses with side shield, as appropriate. Face shields that provide some protection from projectiles are also available.

***Hearing Protection***



Hearing protection is required when personnel may be exposed to high ambient noise levels (over 85 dBA). Appropriate ear plugs and/or ear muffs shall be worn by personnel working in the vicinity of heavy equipment and at the Flare Station. Hearing protection shall be approved under CSA Standard Z94.2-02. No personal listening devices shall be used at the landfill.

***Gloves***



Latex, vinyl, nitrile or neoprene gloves shall be worn by personnel who may have direct contact with leachate or condensate when carrying out their tasks. For personnel whose tasks may encounter hot or cold surfaces or objects that have sharp or irregular edges, cotton, wool or leather gloves shall be worn, as appropriate.

### ***Personal Gas Detector***



A Personal Gas Detector is a portable instrument that can measure explosive gas concentrations up to 100% LEL, oxygen concentrations from 1% to greater than 23.5% by volume, and H<sub>2</sub>S concentrations from 1 ppm to greater than 500 ppm. The detector shall be calibrated such that it can verify that the airspace in the work area meets the minimum criteria in Table 1 (i.e., LEL less than 10%, oxygen 19.5% to 23.5%, and H<sub>2</sub>S less than 5 ppm). Personal Gas Detectors shall be used at all

times when working on the Flare Station or LFG piping.

The Personal Gas Detector shall be maintained in good working order and be bump tested daily prior to use. If bump testing identifies gas monitoring equipment that is not working within its tolerance limits or if the equipment is outside of its calibration period, it shall be removed from service immediately. Personnel shall be trained in the use and limitations of the gas detection equipment used. The monitor shall not be used if the calibration date has passed.

The Personal Gas Detector shall be deployed between the breathing zone of the user and the source of the contaminant and shall be located so the user can hear and/or see the detector alarm.

### ***LFG Analyzer***



A LFG analyzer is a portable instrument that can measure methane concentrations from 0% to 100% by volume and LEL, and oxygen concentrations from 1% to greater than 21%. This instrument is not to be used as a personal gas detector but is used to measure concentrations of LFG in pipes and equipment.

The LFG analyzer shall be calibrated in accordance with the manufacturer's instructions.

### ***Communication Devices***



Cellular telephones and two way radios are primary communication methods for Landfill workers and supervisors and are the main method of announcing emergency conditions for personnel working outside the office areas. Personnel who work alone shall carry a working cellular telephone with a charged battery on the site. In an emergency situation,

personnel should be aware that common cellular telephones are not intrinsically safe and shall not be used in an explosive environment.

### ***Hard Hat***



Hard hats shall be worn by personnel working in an environment where there is a danger of head injury from falling, flying or thrown objects, or other harmful contacts<sup>3</sup>. Hard hats shall be approved under CSA Standard CAN/CSA-Z94.1-92 and shall not contain metal or electrically conducting materials. Hard hats shall be worn properly to provide maximum protection and be maintained properly to ensure their protection qualities

### ***Fire Extinguisher***



ABC

Landfill.

Fire extinguishers shall be stored and readily available for use in areas around the Flare Station. Fire extinguishers are present on site and one shall be immediately available for work on the collection system that may create sparks. The fire extinguishers should be Class ABC as they are able to extinguish most types of fires that would occur at the

### ***Infra-red Thermometer***



Infra-red thermometers shall be used from time to time to verify that surfaces have cooled sufficiently to allow for human contact. In particular, infra-red thermometers may be used to verify the temperature of flare stacks prior to working on or around the stack.

### ***Inert Gas***



Nitrogen

Industrial grade nitrogen is an inert gas. Nitrogen is economical, has a density almost the same as air, and should be used whenever possible for purging LFG piping or equipment. Carbon dioxide, which is not an inert gas and has an exposure limit, is heavier than air and should be used as a purge gas only for special applications when nitrogen is not suitable.

### **Ventilation fans**



When there is a potential for the creation of a hazardous atmosphere, ventilation fans shall be used for ventilation purposes. Ventilation fans shall be positioned upwind of the work area and intrinsically safe ventilation fans shall be used. Caution should be taken to ensure that ventilation fans only draw in uncontaminated air and that they are directed so that hazardous air is forced away from workers. Ventilation fans for confined space entry shall be capable of blowing clean, respirable air into the work area at a rate of 85 m<sup>3</sup>/h (50 cfm) per confined space entrant for the duration of the time an entrant is in the space.

### **Hair Bands**

Personnel with hair longer than shoulder length, who will be within 0.6 m of moving parts, such as the purge fan motor of the flares, the shaft between the blowers and the motors at the Flare Station, shall tie their hair with hair bands or confine their hair in a hard hat.

### **Training**

Site specific training will be provided to staff working on site by WM which will be a short online course detailing site specific hazard. Staff will also be required to review and complete the safe operating plan prepared by Fluxlab. Furthermore, staff with standard first aid training and H2S alive certifications will be always available for to respond to emergencies.

### **Abbreviations**

CH <sub>4</sub>	Methane	H <sub>2</sub> S	Hydrogen Sulphide
CO	Carbon Monoxide	LFG	Landfill Gas
CO <sub>2</sub>	Carbon Dioxide	N <sub>2</sub>	Nitrogen
CT	Condensate Trap	O <sub>2</sub>	Oxygen
SCBA	Self Contained Breathing Apparatus	LEL	Lower Explosive Limit
PPE	Personal Protective Equipment	ppm	Parts Per Million

END OF PROCEDURE