

## **Appendix A4.9 Accident Prevention and Emergency Response Plan**

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# **Kerdiffstown Landfill Remediation Project**

Kildare County Council

## **KLRP Management Plan**

### **Accident Prevention and Emergency Response**

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## **Kerdiffstown Landfill Remediation Project**

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# **1. Accident Prevention and Emergency Response Plan**

## **1.1 General**

Presently, only limited works are undertaken at Kerdiffstown Landfill site. Site management personnel oversee monitoring, maintenance of landfill gas and leachate infrastructure and coordination of third party consultants and contractors.

Management of the site is currently undertaken via Standard Operating Procedures (SOPs) which are held in the site office and issued to the affected party, or for use within reference in contractual documentation as necessary. These SOPs will remain in place until such time as the site is granted an Industrial Emissions (IE) Licence for remediation works to commence. Thereafter this Management Plan will be reviewed to ensure that that any related conditions of the IE Licence are fully embraced within the Management Plan. This document shall then supersede the existing SOPs.

The statements and work instructions set out in the following sections will be reviewed immediately following issue of the IE Licence, with other Management Plans being prepared and embedded within one document for ease of reference.

The Management Plan is a live document and will be reviewed on a regular basis and upgraded accordingly. A record of revisions is included in the contents to the Management Plan.

It is acknowledged that the end use of the site is a multi-use public park with sports pitches that will be subject to additional emergency response procedures that covers the operation of the park. These operations will be influenced by the remediation works with respect to further monitoring data gathered, as-built details, associated risk assessments and subsequent development of park operational procedures. This Management Plan will be updated based on review of these and similar inputs prior to the commencement of park operations.

## **1.2 Accident Prevention**

### **1.2.1 Statement**

The following sections set out measures and procedures which are to be in place for the prevention of accidents in the undertaking of remediation works at the site, and, should an accident occur, the minimisation of effects on the environment from accidental emissions and emergency situations which may arise.

Accidents are prevented on site through the implementation of effective site management. This is achieved through the following measures:

- identification of potential sources of risk;
- assessment of the degree of risk from these sources;
- determination of procedures for addressing the risks;
- development of procedures to minimise accident/risks when they occur; and
- on-going monitoring to ensure proper implementation of safe working procedures.

Health and safety on the site is governed by the Kildare County Council (KCC) Safety Statement and a suite of standard operation procedures (SOPs) that currently provide for the safe operation and management of the site on a daily basis.

There are overarching health and safety principles that have been implemented as part of the management of the site to ensure that accidents are prevented.

- All personnel entering the site must undergo a site induction.
- Standard personal protective equipment (to include as a minimum hi-visibility vest or jacket, hard hat, safety glasses, safety boots with steel toe cap and steel midsole, and gloves) is to be worn by all personnel upon entering the site and must be maintained while present on site.
- All personnel working on site must hold an up to date SOLAS Safepass H&S Awareness Training card (or equivalent) and a Construction Skills Certification Scheme card for personnel who operate plant machinery.
- Prior to any work commencing on site all contractors must submit a risk assessment and method statement for the planned works and allow sufficient time for the review and approval of the documentation by KCC.
- Standard work procedures and safe systems of work are to be employed by all contractors.
- Permits to work may be required for certain areas on the site such as within the landfill gas flare compounds and within the ESB switch room/ substation.

### **1.2.2 Hazard Identification**

Many accidents and injuries that are suffered by those who work within the landfill industry are transport related. For site works, these are predominantly associated with workers being struck by a vehicle (road going or earth moving such as mechanical shovels). Slips and trips also form a large proportion of the number of injuries resulting from working in the industry.

The following potential hazards / accidents have been identified as being relevant to the current operation of the site:

- Security
- Accidents on site
- Migration of landfill gas
- Explosion
- Fire
- Flare shutdown
- Stability
- Detection of non-compliant wastes
- Spillages and leaks

An assessment has been carried out to determine the likelihood of occurrence of the different emergency scenarios and the consequences of such an occurrence. For each of the emergencies identified a likelihood category has been assigned and an estimate of the likely consequences made. Action plans have also been included for each of the identified scenarios.

Emergency procedures for outside of normal working hours are detailed as part of this Management Plan.

The remediation phase of the site will comprise commencement of construction works, notably installation of new perimeter security fencing, revised access arrangements, importation of waste soils and movement of materials within the boundary of the site. A competent contractor(s) will be appointed to undertake the works, hence further hazards may be identified from the detailed assessment of those works. This Management Plan will be updated to reflect revision of procedures as appropriate.

## 1.3 Assessment and Action Plans

### 1.3.1 Security

#### a) Assessment

The site boundary is predominately secured by means of a palisade fence with security gates provided at the site entrance. An infra-red security beam system is also used around the boundary which alerts the 24 hours security personnel to encroachment within the site boundary.

As part of the remediation works at the site a palisade or similar security fence will be installed around the entire site perimeter. Additional gated locations will also be installed to permit site personnel to access monitoring locations outwith the site boundary. A new site access junction will be constructed, comprising a roundabout which will require relocation of the entrance gates and security hut. A new Landfill Infrastructure Compound will also be constructed adjacent to the site entrance, which will have separated security fence provision around its extents.

Security measures will be maintained to prohibit unauthorised access to the site.

Assessment indicates that there is a medium risk of encroachment to the site, but with activity on site likely to draw attention, this risk will increase. The installation of a new fence supported by the action plan below will reduce this risk to an acceptable level.

#### b) Action Plan

Perimeter fencing and gates should be maintained to prevent unauthorised access as far as practicable. Security fencing will be required for vulnerable locations such as the Landfill Infrastructure Compound.

- Perimeter fencing and gated access to be inspected regularly by a nominated person.
- Perimeter fencing and gates to be maintained in good state of repair at all times.
- Additional security provisions to be considered in design of revised site access arrangements:
  - security cameras;
  - security guard(s);
  - intruder alarms, lighting, shutters and bars on accommodation.
- All incidents of unauthorised access to be reported immediately to the Site Manager.

### 1.3.2 Accidents on Site

#### a) Assessment

Accidents have the potential to occur on site at any time during the lifecycle of the project but most especially during remediation works. Incidents involving vehicles can be greatly reduced by eliminating or keeping reversing manoeuvres to a minimum and adopting safe procedures including the correct use of warning lights, mirrors and alarms on site vehicles. Furthermore, use of CCTV and radio communication on mechanical plant on landfill sites gives operators good all round vision and the ability to communicate with those working at ground level, and will assist in reducing the number of accidents and injuries that could occur.

Personal protective equipment such as cut resistant and high visibility clothing, face masks, safety goggles and ear muffs also help in this regard alongside thorough risk assessment, provisions for the training of staff in relevant tasks and assessing the competency of all staff for tasks assigned.

The likelihood of an accident on site is low if the relevant site safety procedures are adhered to. For remediation works a competent contractor will be appointed to undertake the works and will be required to prepare appropriate and relevant risk assessments and method statements in compliance with pertinent legislation and guidance. These documents will be reviewed by KCC as Operator of the site.

Safety reviews will be undertaken routinely during the construction works, at least once per month, to involve the contractor and operator (KCC) site personnel.

b) Action Plan

The current standard operating procedures for the site detail the following action plan in the event of all accidents and near misses. These will be utilised to inform the contractor of minimum guidelines to be incorporated in the contractor's documentation.

- All accidents and near misses are to be reported to the Site Manager and the Contractor Supervisor immediately.
- Where the incident requires attendance by emergency services dial 999, state the emergency and give the site location.
- Make the area safe around the scene of the accident and cordon off.
- Qualified First aider to administer aid to the affected person/persons if feasible. First aid boxes are provided on site.
- Where required, the Site Manager will contact site security at the main gate so that the emergency services can be directed to the scene of the accident upon arrival on site.
- The Site Manager will then notify the KCC Health & Safety officer.
- The Site Manager will investigate every incident/near miss through consultation with the relevant parties and collate all the resultant information.
- An incident report form shall be filled out by the Site Manager/Line Manager once all the facts have been gathered and then reported back to the KCC Health & Safety officer.
- Corrective action procedures or mitigation measures shall be implemented by the Site Manager and recorded in the On-Site Accident Book.
- Accidents that result in more than three days absence from work will be reported to the Health and Safety Authority (HSA) in accordance with statutory requirements.

**1.3.3 Migration of Landfill Gas**

a) Assessment

An Explosion Protection Document (EPD) exists for the current site condition and details considerations with respect to landfill gas. This document will require to be revised and updated as remediation works on site are progressed.

As the site is currently uncapped (other than Zone 3), gas emissions emit through the surface of the waste. As remediation works progress, with the application of a capping system, the risk of landfill gas migration towards uncapped areas of the site and potentially to the site boundary will temporarily increase until the extended landfill gas management system has been fully completed.

A temporary capping liner has been constructed over Zone 3 with gas wells installed to permit active gas abstraction. The cell has been constructed with basal and sidewall liners, hence landfill gas migration potential is low.

b) Action Plan

The following action plan should be followed with respect to landfill gas migration.

- Perimeter gas monitoring boreholes, located beyond the extents of waste, to be installed in advance of remediation works to permit data collection and baseline determination.
- Maintain gas management system at the site to actively extract gas where feasible.
- Monitor perimeter and on site gas boreholes and assess against baseline data for evidence of migration.
- Report any exceedances in compliance with requirements of the site IE Licence.
- Undertake further monitoring and sampling where required.
- Review emergency procedures in relation to proximity to receptors.



### 1.3.4 Explosion

#### a) Assessment

Landfills, both operational and closed, are installations where flammable substances are present and where the degradation of putrescible wastes and leachate generates flammable gases that could accumulate to explosive concentrations. The site has an active landfill gas management system in place to manage gas. This will be augmented during the remediation works with management maintained throughout.

The degradation of waste materials generates a number of gases. Methane ( $\text{CH}_4$ ) is generated and can represent a fire/explosion hazard. Between the concentrations of 5% and 15% by volume in air methane, is explosive. At other concentrations, the risks are less, although with concentrations higher than 15% mixing can cause concentrations to drop into the explosive range or can asphyxiate if oxygen is depleted.

Hydrogen sulphide ( $\text{H}_2\text{S}$ ) is a possible degradation product and is also a flammable gas. Its lower explosive limit (LEL) in air is approximately 4.5%. There is a very low risk in the landfill environment, since this concentration is very unlikely to be reached.

In order to ignite, the flammable gas must be present in its explosive range and have an ignition source. There is the potential for an explosion in any confined space where gas is present in its explosive range. An explosion could cause burns of varying degrees, and impact damage through the mobilisation of solid objects either of which could cause death.

A further risk of explosion at the site is where explosive materials are discovered within deposited waste. The likelihood of this occurring is low.

#### b) Action Plan

To minimise the risk of explosion, the following measures should be applied:

- No smoking on site (a cigarette can act as an ignition source).
- No naked flames.
- No unearthed or faulty electrical equipment should be used on site.

To mitigate introduction of ignition sources:

- Only ATEX (ATmosphères EXplosives) approved equipment should be used in defined zoned areas. Details of the application of ATEX to the site infrastructure are provided in the EPD.
- All confined environments should be monitored prior to them being entered. Entry should only be allowed if the monitoring indicates that it is safe to do so. All confined spaces should be adequately vented to prevent the accumulation of hazardous gases and the confined space should be placed as far as possible from the areas of placed waste.
- Management of the landfill gas management system should only be undertaken by staff with sufficient knowledge or appropriate supervision or approval, and relevant training should have been provided.
- A system of 'Permit to Work' or similar should be in place and designed such that any planned actions involving a contractor or other party will require permission from the Site Manager prior to the works being undertaken. Care must be taken whilst working adjacent to the gas extraction system to ensure that no damage occurs.

In the event of an explosion the action taken by installation personnel would be the same as that taken in the event of fire.

In the event that explosive materials are discovered within the waste or in a skip, the following action would be taken:

- Evacuate the area and keep clear;
- Dial 999 and state the nature of the emergency;
- Follow all instructions given; and
- Contact Site Manager immediately.

### **1.3.5 Fire**

#### **a) Assessment**

##### Landfill

Fire is an ever-present hazard at landfill sites when the combination of heat, oxygen and fuel reach a critical level. The work practices outlined below are designed to prevent these elements from forming an uncontrolled outbreak. The procedures in place are designed to guard against an outbreak of fire and to ensure, so far as is reasonably practicable, the safety of the persons at the site in the event of an outbreak of fire.

There are two primary causes of landfill fires: vandalism and poor landfill gas management. Maintaining site security as detailed in this Management Plan reduces the opportunity for vandalism. As the usage of the site changes during the remediation phase and, most notably, the aftercare phase whereby operation of the park will commence, this Management Plan and associated risk assessments will require to be updated. Active landfill gas management is undertaken on Zones 1 and 3 at the site. These arrangements will continue and will be augmented during the remediation phase. The system is operated by trained personnel only and maintained by a competent contractor.

The following measures have been initiated at the site to minimise the risk of fires:

- Site security to prevent unauthorised access;
- Capping of areas where feasible (Zone 3);
- Prevention of air ingress in to the waste and gas extraction and collection systems (Zone 3).
- Soil stockpiled on site is available for firefighting purposes;
- Construction equipment is required to be fitted with vertical exhaust and spark arrestors.
- Monitoring of landfill gas management system is maintained to ensure appropriate balancing of the field. Refer also to Landfill Gas Management Plan and Monitoring and Control Management Plan.
- Motors utilised in waste excavation areas or ATEX defined zone areas will be explosion proof.
- Start-up and shutdown of equipment should not be done in areas of exposed waste or ATEX defined zones.
- Only ATEX zone compatible equipment should be used within defined zones (unless the equipment has been shown to be safe to use through risk assessment).

The EPD includes the following actions to mitigate the risk of fires at the site:

- Classify the site as 'Non-Smoking' except for a specially designated area and erect suitable signs to inform employees, contractors and visitors to that effect;
- Ensure employees, contractors and, where applicable, visitors wear suitable anti-static clothing, including footwear, conforming to EN347, when operating in zoned hazardous areas in order to reduce the risk of electrostatic discharges;
- Zoning signs have been erected as recommended in the EPD, with a record of the zoning locations available on site at all times for reference purposes;
- The leachate holding tanks and drainage system inspection chambers have been designated as confined spaces as defined in the Safety Health and Welfare at Work (Confined Spaces) Regulations 2001 and warning signs fixed accordingly.
- Safe systems of work are in place for entry into any of the spaces and work carried out within them. This includes measures for adequate ventilation during access by personnel;
- Implementation of a Permit to Work system;

##### Site Office

Fire Prevention Measures:

- Waste materials shall not be allowed to accumulate; such materials shall be removed from offices areas, at regular intervals, and stored in suitable designated areas, pending disposal (off site).

- Flammable liquids, gases and other potentially dangerous substances shall be limited to small quantities, handled with extreme care, and stored in labelled suitable containers in designated suitable storage areas.
- Smoking is prohibited throughout the site, in all indoor work areas and fire risk areas apart from designated smoking area(s).
- Electrical and gas appliances and associated fittings shall be checked on a regular basis and defects remedied as soon as possible. Defective items should be rendered safe until repairs are carried out.
- Where installed, cookers, extractor fans, filters, air ducts and machinery shall be regularly cleared of oil, grease and dust. A competent person shall perform servicing regularly.
- Portable gas and liquid fuel heaters shall not be used on the premises at any time.
- Building and plant maintenance involving the use of equipment such as oxy-acetylene cylinders, welding equipment, liquefied gas appliances and flammable liquid containers must be subject to a hot work permit and shall be restricted to those periods when the premises is not occupied in so far as this is practicable.
- Extinguishers are strategically placed throughout the facility at the main site offices, at the security huts and in the site vehicle(s). A competent person employed by KCC shall test all firefighting equipment each year. The date and results of each inspection will be recorded and filed by the Site Manager.
- Fire instruction notices are displayed in suitable locations on the premises. All exits are clearly marked.
- All entrances, exits and will be kept clear at all times. Equipment or goods will not be stored in such a way as to impede traffic.
- Training in the theory and practical use of fire extinguishers has been given to project staff. All new site based project staff will be trained within one year of starting at the site.

Emergency procedures associated with fires at the site are detailed in Section 1.4.

The risk of fire at the site is low given the controls as detailed above, supported by current SOPs and the Landfill Gas Management Plan.

#### b) Action Plan

In the event of fire being discovered the following action plan should be followed.

- Any fire discovered must be reported to the Fire Brigade by dialling 999 and subsequently the Site Manager or deputy without delay.
- In most cases the decision to evacuate will be made by the Site Manager or their deputy.
- The evacuation procedure will be implemented by a call over site radios.
- Notify all other persons within the vicinity of the situation and leave the site offices/area.
- Upon hearing an alarm all persons will move to the designated assembly point for the site.
- Upon reaching the assembly point all persons will remain in the area until accounted for by a designated person by means of a roll call or similar.
- Do not return to the offices or facility until informed that it is safe to do so by a designated member of project staff or a member of the Fire Brigade.
- Assembly Point for Facility – Main gate

#### 1.3.6 Flare Shutdown

##### a) Assessment

A flare (termed the '250 flare') currently operates 24 hours per day, 7 days per week. However, occasionally flare shutdown may occur as a result of poor landfill gas quality, mechanical failure and/ or inclement weather conditions. This may result in odour nuisance to neighbouring receptors or an increase in fire risk due to build-up of landfill gas and possible ingress of oxygen to the gas fields.

The gas field will be extended during the remediation phase with a new gas flare (and back-up) installed to the Landfill Infrastructure Compound at the site. Measures for the operation of the flare will be reassessed on confirmation of plant details and this Management Plan will be updated accordingly.

b) Action Plan

In all cases of flare shut down the following action plan will be followed.

- In the event of a flare shutdown for any reason a text and email alert will be sent to KCC (nominated representatives) and Security Personnel in case of out of hours shut down (text sent mobile phone held in the security hut at the site's main gate). Site Security on receipt of a text message stating that a flare has shut down should contact the Site Manager immediately.
- In the event of a flare shutdown KCC will make an assessment to either restart the flare remotely or make a decision to allow the flare to restart automatically at 07:00am. This decision will be based on prevailing conditions at the time such as gas quality prior to the shutdown, weather conditions or other faults evident from the information system for the flare.

### **1.3.7 Stability**

a) Assessment

A major slope failure could be caused by instability of the substrata, being waste. Ongoing geotechnical assessment of site has indicated that the risk of a large scale slope failure ranges from medium to medium/high along external slopes due to infilled gradients and low-to-high in various internal areas of the site. Inspection of slopes is ongoing at the site.

Topographical surveys are undertaken on an annual basis to assess settlement, and check for areas indicative of stability issues.

Remediation phase works include the re-profiling of current over-steep slopes, to lesser gradients as determined from stability assessments for the waste mass and capping system. During detailed design these assessments will be updated and this Management Plan adjusted accordingly. Similarly procedures for the ongoing assessment of settlement and stability are detailed in the Monitoring and Control Management Plan.

b) Action Plan

In the event of major slope failure the following steps should be undertaken:

- Site management to be made aware of any slope failures immediately.
- All personnel present on site should be notified and a roll call should be completed on site at the designated assembly point for the facility, the Main Gate. If a person is missing, the emergency services should be notified immediately.
- Area should be suitable cordoned off to prevent pedestrian and vehicular access in case of further slope failures.
- If the slope failure is associated with leachate breakout further actions may be required to contain the liquid as outlined in Section 1.3.9.

### **1.3.8 Non-Compliant Wastes**

a) Assessment

The Site was previously licensed to accept non-hazardous and inert wastes hence there is a low risk of other, non-compliant waste materials being present. However, the remediation works could encounter non-compliant wastes during slope regrading and stockpile excavation.

b) Action Plan

Should inspections undertaken during waste operations by the contractor determine that waste is suspected to be non-compliant with the original waste acceptance criteria the contractor shall undertake the following actions:

- Quarantine that waste by constructing a perimeter bund and placement of a tarpaulin or other suitable cover over the waste until such time as testing is undertaken and waste classification confirmed. A quarantine area will be defined for use by the contractor in the eventuality of non-compliant waste being encountered.
- Stop works in immediate area.
- Notify KCC without delay regarding any suspected non-compliant wastes that have been detected.
- Ensure appropriate PPE is worn before re-entering the area;
- Ensure a personal gas monitor is worn at all times when working in the vicinity of suspected hazardous wastes;
- Following agreement by inspection by KCC waste acceptance criteria testing to be undertaken with results made available to KCC. Take photographs and representative samples for further analysis as per EPA guidance;
- Do not re-enter the area or recommence works until it has been established if the material is hazardous or non-hazardous;
- The Contractor shall note that certain wastes may not fall within the criteria of a hazardous waste under the Waste Management Act 1996. However, they may fall into the category of being a "difficult waste" for the reason that their properties require special arrangements for disposal to landfill. This typically means that such wastes cannot be placed with other materials on the working face and compacted alongside other wastes. An example of difficult waste is light materials such as polystyrene and dusty wastes. Liquid wastes may arise which can be disposed of to landfill, provided that the quantities deposited are small and that they are of a low hazard. Examples of low hazard liquids include cement bearing liquids from concrete production facilities. On detection and agreement with KCC, difficult wastes should be placed in front of the working face and not over the working area and immediately covered with other waste.
- Any noxious material should not be located within one metre of the surface or two metres from the flanks or face.
- Dusty waste may need to be delivered in sealed bags. Alternatively, this waste should be sprayed with water.
- If the material is classified as hazardous contact an appropriate hazardous waste specialist to seek advice regarding removal from site and subsequent treatment/disposal at a licenced facility;
- Once an approved contractor has been appointed excavate and transfer the hazardous material into covered skips/sealed containers for subsequent transportation to a licenced facility;
- Ensure all documentation is in place prior to handling/ moving hazardous waste i.e. waste transfer from, waste permits, waste licences and that specialist contractors with experience of handling/ moving hazardous wastes are used throughout.

### **1.3.9 Spillages and Leakages**

a) Assessment

Currently spillages and leakages can occur during loading of leachate from the temporary storage tankers located at the top of the south bank of the lined cell (Zone 3). During the remediation phase of works where there are construction activities being undertaken spillages and leakages may occur during the refuelling of vehicles, fuel deliveries, vehicle servicing, vehicle breakdowns, accidents and/ or damage to tanks and bunds.

In order to prevent spillages and leaks of potentially polluting materials and minimise the impact of any spillages that do occur the following measures will be implemented on site.

The management of leachate is currently governed by the Standard Operating Procedure 01 Leachate Management. This procedure sets out the following elements in relation to potential spillages of leachate.

- The leachate tankers are positioned on a concrete containment area with a sump located in the centre of the concrete slab.
- Any spillages of leachate from the tankers flows into the sump which redirects the leachate back into the lined cell through a connecting pipeline.
- The leachate tankers are positioned and levelled in such a way that in the case of an overflow situation any leachate that escapes from the top of the tankers flows onto the concrete containment area and into the sump.
- Two concrete blocks have been installed at the back of the tankers to act as a safety blocks to prevent the articulated tanker from driving off with the pipe work connected and damaging the leachate storage tanks.
- A level sensor float switch has been installed in each of the storage tanks which knocks off the leachate pump once a high level mark is reached.
- If leachate reaches a high level within the sump a red indicator light is switched on at the control panel indicating that immediate tankering is required in this instance.

Remediation works include provision for a new Landfill Infrastructure Compound. A new leachate management system will be installed, to include automated security provisions and alarms, to be developed during the detailed design stage.

General provisions for assessment of spillages and leakages are set out below.

- **Unloading Procedure**  
All polluting materials delivered to site will be unloaded by suitably qualified employees from the delivery company and overseen by a designated site operative or equivalent.
- **Storage Vessels**  
All potentially polluting materials shall be stored within tanks constructed to the appropriate standard.
- **Bunding**  
All storage tanks will be located within an area bunded to contain 110% of the volume of the largest vessel contained within the bund, or 25% of the aggregated total capacity, whichever is the greater.
- **Inspection**  
All bunded tanks will be inspected at regular intervals by the Site Manager or designated deputy to ensure the continued integrity of the tanks and identify the requirement for any remedial action.  
Any minor spillages or rainwater that has accumulated within the bund will be removed at regular intervals to ensure the capacity of the bund is maintained.
- **Absorbent Materials**  
A supply of materials suitable for absorbing and containing any minor spillage will be maintained at the site.  
Suitable materials include the following:
  - Sand and earth;
  - Proprietary absorbents; and
  - Sealants
- **Spill Containment Equipment**  
Materials suitable for containing spills including sealing devices and substances for damaged containers, drain seals and booms will be maintained at the site.
- **Monitoring Techniques**  
All installation personnel will be tasked with monitoring for evidence of spillage and leakage, during their day to day routine. The condition of bunds and tanks will also be inspected on a daily basis.



Any evidence of spillage or leakage will be reported to the Site Manager or his deputy for appropriate remedial action.

**b) Action Plan**

In the event of spillage of polluting materials, immediate action will be taken to contain the spillage. The spillage will be reported to the Site Manager who will assess the situation and decide on the most appropriate course of action. The action taken will depend upon the size of the spillage, the location of the spillage in relation to sensitive receptors and the nature of the spilled material.

Actions will include some or all of the following:

- Stop work causing spillage immediately, If it safe to do so.
- Identify the source of the spill and rectify the problem, if possible (e.g. turn off valves or taps, or patch a hole).
- Notify the Site Manager immediately.
- The Site Manager will complete a Non-conformance and Accident / Incident Report Form.
- If it safe to do so the cause of the spill or leak will be isolated and / or moved to a bunded area.
- If spilled material is flammable extinguish all possible sources of ignition.
- Ensure the appropriate PPE is worn at all times while cleaning up a spill.
- If the spillage is small spill granules will be used immediately to prevent the spill spreading. The area will be cleared and all contaminated material will be sent to an appropriately licensed site for disposal.
- If the spill is larger inert materials such as clay or sand will be used to make a containment bund and specialist help will be sought to assist in clean up.
- Spillages are not to be hosed to a drainage system.
- If any spillage enters a flowing watercourse EPA will be contacted immediately and appropriate action will be taken to contain the spill by using for example oil absorbent booms.
- If the spillage cannot be contained using approved materials EPA and Senior Management will be contacted immediately and specialist help obtained.
- If a vehicle is found to be leaking it should be moved to a position where the spillage can be contained, i.e. a quarantine area or other hard surfaced area if it is safe to do so.
- Ensure clothes/overall/gloves are disposed of in an appropriate manner and good hygiene practices are maintained at all times. Wash hands immediately after area has been cleaned up.
- All personnel will follow instructions provided by the Site Manager or other competent person.

## **1.4 Emergency Response**

### **1.4.1 Emergency situations outside of normal working hours**

During operational periods i.e. 09:00 – 17:00, Monday to Friday, the Site Manager has responsibility for the operation and maintenance of the facility.

During non-operational periods i.e. before 09:00 and after 17:00 Monday to Friday, weekends and during holiday periods no Site Manager will be present, however, security retain a full time presence on site with responsibility for reporting of any issues that are outside of the normal working hours of the site. A copy of this Management Plan will be made available to security personnel.

Representatives from KCC may also visit site during out of office hours/over weekends to ensure that control systems are operating to specified conditions and that the site is maintained in a compliant and environmentally safe manner.

#### **1.4.2 Fire Incident**

Fire evacuation practice drills will be held annually and the Site Manager shall maintain records. Circumstances may arise where it is considered necessary to evacuate the facility. The most likely reason is a serious outbreak of fire. The following procedures should be followed in the event of a fire incident:

- In the event of a visible fire contact the Fire Brigade immediately (999) and inform the Site Manager as soon as possible.
- Notify all other personnel present on site and instruct everyone to go to the designated Assembly Point 1 for the site being the car parking opposite the Site Offices.
- If Assembly Area 1 is not accessible then all personnel will be directed to Assembly Area 2 located outside the main gate.
- All personnel should remain in the assembly area until all have been accounted for by means of a roll call using the sign in log sheet.
- Do not return to work/site offices until informed by the fire services or Site Manager that it is safe to do so.

#### **1.4.3 First Aid**

First aid boxes are currently provided at the following locations:

- Site Offices
- Security office – Main Gate
- Security office – Zone 1

All employees are to be made aware of the location of first aid boxes in the Site Induction.

KCC first aiders on site are James Mulligan (Project Manager) and Enda Hoey (Site Manager).

### **1.5 Work Instructions**

#### **Duty of the Site Manager**

- Ensure that Emergency Procedures are maintained and updated as necessary;
- Ensure that all site personnel are aware of the location and contents of the Emergency Procedures;
- Ensure inspections are undertaken of the infrastructure as set out in this Management Plan;
- Ensure that all equipment such as fire extinguishers and first aid boxes are maintained in working order/ with stocked supplies as appropriate;
- In the event of any accident, discharge or spillage that may be harmful or polluting, provide written details to EPA. Where appropriate notify EPA verbally as soon after the incident as practicably possible;
- Maintain all training records;
- Maintain all safety related records, including inspections, site inductions, current versions of SOPs/ Management Plans, risk assessments and method statements, incidents reports and records of Management Plan revisions.

#### **Duty of Site Personnel**

- Ensure awareness of the location and contents of the Emergency Procedures;
- In the event of any accident, discharge or spillage that may be harmful or polluting contact the Site Manager immediately;
- In the event of any accident, discharge or spillage that may be harmful or polluting take immediate action to terminate any discharge or contain the discharge from further polluting effects;

Where it is considered safe to do so smother or contain any fire on the operational face.