Watersplash Farm

Environmental Permit Application

Landfill Gas Screening Report

September 2017

Prepared on behalf of CEMEX UK Materials Limited

Quay West at MediaCityUK, Trafford Wharf Road, Trafford Park, Manchester M17 1HH
Tel: +44 161 874 8714
Email: andrew.bowker@wyg.com

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1.0 Introduction

1.1 Report Context

1.1.1 CEMEX UK Materials Limited (CEMEX) has commissioned WYG to undertake a Landfill Gas Screening Report for the proposed landfill site at Watersplash Farm.

1.1.2 The objective of the Landfill Gas Screening Report is to support the application of a bespoke waste disposal permit and to assess the potential risk to sensitive receptors associated with landfill gas.

1.1.3 The potential source of landfill gas (LFG), potential pathways through the geosphere and atmosphere by which LFG can migrate and the potential receptors are identified.

1.1.4 The proposed waste types, which would be accepted at the site, are inert in nature. Consequently, a quantitative gas risk assessment (for example using the Environment Agency's approved GasSim software) is not considered appropriate and has not been used. However, this qualitative gas risk assessment uses a number of sources of guidance, which include:-

- Environment Agency (2007), 'Potential Gas Production From Landfilling Of Inorganic Wastes', Report reference SC030144/SR, March 2007;
- Environment Agency (2007), 'Investigation And Quantification Of Gas Produced From Landfilling Of Inorganic Wastes' Report reference P1-516/2b, August 2007; and
- Environment Agency, Landfill Technical Guidance 03 (LFTGN03) 'Guidance on the Management of Landfill Gas', September 2004.

2.0 Site Description

2.1.1 Watersplash Farm (the site) is located approximately 1.2km north east from Shepperton in Surrey and is centred on approximate National Grid Reference (NGR) TQ 09303 67529. The application site is detailed on Drawing Number CEM/A104530/LOC/01.

2.1.2 The site is divided in two by the River Ash which enters the site at the north west under the Upper Halliford Bypass and runs in a south-east direction towards Fordbridge Road. The river then joins the River Thames which is located approximately 400m south at its closest point.

2.1.3 The western boundary is formed by the Gaston Bridge Road (A244), the south by the Fordbridge Road (B375) and the north east by Halliford Road. To the south of the site beyond Forbridge Road is a marina, fishing lake and swan sanctuary.

2.1.4 Residential properties are located to the west, north and south east of the site and the nearest residential property is a detached residential property know at Cuckoo Pound. The property is located along the northern boundary of the western half of the site. Commercial units are located to the south east of the eastern half of the site.

2.1.5 The closest surface water feature to the site is the River Ash which enters the site at the north west under the Upper Halliford Bypass and runs in a south-east direction towards Fordbridge Road. The river then joins the River Thames which is located approximately 400m south at its closest point.

2.1.6 With reference to the Multi Agency Geographic Information for the Countryside (MAGIC) website, there are a series of deciduous woodland located to the south of the site which are designated as priority habitats. The nearest area of deciduous woodland to the site is located approximately 20m, opposite Fordbridge Road

2.1.7 A detailed site description is provided within the Environmental Setting and Site Design document, which accompanies this Environmental Permit application (refer to Appendix C).

3.0 Conceptual Landfill Gas Model

3.0.1 The source, pathway, receptor approach has been used to assess the potential risks of landfill gas from Watersplash Farm.

3.1 Source

3.1.1 The main potential source for this has risk assessment is the inert waste that would be deposited permanently at Watersplash Farm. The void will be infilled progressively and it is calculated that in order to complete the proposed works, approximately 680,000m3 of waste will be required in total. The definition of inert waste is provided in Regulation 35(2) (d) and Schedule 10 of the Environmental Permitting (England and Wales) Regulations 2016 (as amended) which states:-

'*inert waste' means waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm to human health. The total leachability and pollutant content and the ecotoxicity of its leachate are insignificant and, in particular, do not endanger the quality of any surface water or groundwater.'*

3.1.2 Regulation 35(2) (d) of the Environmental Permitting Regulations provides a table of materials that can be assumed to be inert because of their nature and source. As a result, these materials can be accepted at an inert landfill site without testing. To meet the inert classification, only wastes identified in Table 1 below will be accepted at the site without testing.

Table 1: Inert wastes which do not require testing

List of Wastes Code (EWC)	Description	Restriction
10	**WASTES FROM THERMAL PROCESSES**	
10 11	**Wastes from manufacture of glass and glass products**	
10 11 03	Waste glass-based fibrous materials	Only without organic Binders
15	**WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED**	
15 01	**Packaging (including separately collected municipal packaging waste)**	
15 01 07	Glass packaging	

17	**CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)**	
17 01	**Concrete, bricks, tiles and ceramics**	
17 01 01	Concrete	Selected C&D waste only*
17 01 02	Bricks	Selected C&D waste only*
17 01 03	Tiles and ceramics	Selected C&D waste only*
17 01 07	Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06	Selected C&D waste only*
17 02	**Wood, glass and plastic**	
17 02 02	Glass	
17 05	**Soil (including excavated soil from contaminated sites), stones and dredging spoil**	
17 05 04	Soil and stones other than those mentioned in 17 05 03 **	Excluding topsoil, peat; excluding soil and stones from contaminated sites
19	**WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE**	
19 12	**Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**	
19 12 05	Glass	
20	**MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS**	
20 01	**Separately collected fractions (Except 15 01)**	
20 01 02	Glass	Separately collected glass only
20 02	**Garden and park wastes (including cemetery waste)**	
20 02 02	Soil and stones**	Only from garden and parks waste; excluding topsoil, peat.

(*) Selected construction and demolition waste (C & D waste): with low contents of other types of materials (like metals, plastic, soil, organics, wood, rubber, etc). The origin of the waste must be known.

For the purpose of waste acceptance, soil and stones includes naturally occurring sands and clays.

3.1.3 Landfill gas is produced by the biological degradation of organic components. Microbial processes degrade organic matter in the absence of oxygen and produce methane and carbon dioxide. In terms of landfill gas generation at the Watersplash Farm, no organic matter will be present and it is therefore considered that inert waste materials deposited at the site will not give rise to significant quantities of landfill gas. The potential for the generation of landfill gas is therefore considered to be negligible.

3.1.4 The site will have strict waste acceptance procedures in place to ensure that only inert wastes are accepted at the site. This will minimise the risk of acceptance of non-conforming wastes,

such as biodegradable wastes, which would have the potential to cause the generation of landfill gas.

3.1.5 Taking into account the above, it is considered unlikely that there will be any source of significant landfill gas generation at the site.

3.2 Pathways

3.2.1 A number of potential pathways exist which would provide a link between the sensitive receptors and landfill gas generated within the landfill site. The Environment Agency's guidance document LFTGN03 'Guidance on the Management of Landfill Gas' (September 2004) identifies the following generic potential pathways:-

- Direct release to atmosphere;
- Sub-surface migration, through the ground or along service ducts or pipelines;
- Indirect release to atmosphere e.g. from sub-surface landfill gas migration; and
- Direct release of combustion products to atmosphere e.g. from flares/engines

3.2.2 It is considered that the primary pathway for landfill gas generated within the site would be vertically to atmosphere through unrestored areas of waste. Pathways that are considered to be less preferential would be vertically through the restored areas of the site or laterally through the engineered side slope liner.

3.2.3 The Environment Agency's Report 'Investigation and Quantification of Gas Produced from Landfilling of Inorganic Wastes' (August 2007) considers the potential for landfill gas to migrate from an inorganic or low carbon landfill site. The report acknowledges that inorganic waste does not generate substantial quantities of landfill gas, and that there will generally be an insufficient pressure differential to drive the landfill gas through low permeability waste. Thus, as there will be an insignificant quantity of organic/biodegradable waste deposited within the proposed site, it is considered that there will be an insufficient driving pressure for the gas to create a viable pathway.

3.2.4 Furthermore, the waste will be deposited within a site, which has an in-situ basal liner comprising natural London Clay and an engineered side slope liner (geological barrier) with a hydraulic permeability of less than 1 x 10^{-6}m/s. On completion of filling to final levels, the site will be capped with 1m of restoration soils comprising not less than 0.3m of topsoil. In accordance with the requirements of the Landfill Directive, an engineered cap (clay or plastic)

is not required.

3.2.5 In addition to the limitations for landfill gas migration because of the negligible quantities of organic/biodegradable waste, which will be deposited, the proposed engineering design will further limit the potential for any viable pathways.

3.3 Receptors

3.3.1 The details of all receptors within 1km of the waste operation boundary are summarised in Table 2 below.

Table 2: Sensitive receptors located within 1km of the proposed waste operation

Receptor	Direction from Operational Area	Minimum Distance from Proposed Landfill Boundary (approx.) (m)
Designated ecological habitats/sites of geological importance e.g. Ramsar, SAC, SPA, SSSI, LNR, NNR, LWS		
N/A		
Domestic dwellings		
Lower Halliford	SW	88
Hotel	S	394
Halliford Road	N	61
Nell Gwynn Avenue	E	260
Watersplash cottages	SE	On site
Wheatley's Eyot	E	315
Manor Road	S	580
Commercial and Industrial premises		
Garden Centre	N	Bordering Site
Leisure Centre	E	648
Schools/ Hospitals/ Shops		
Thamesmead School	SW	370
Hallford School	SW	593
Recreation/ Open Spaces		
Sunbury Golf Club	NW	625
Hazelwood Golf Centre	N	355
Playing Field	SW	605
Caravan Site	E	35
Bishop Duppas Park	SW	220
Thames Meadow	S	585
Highways or Minor Roads		
Gaston Bridge Road (A244)	NW-SW	<10
Green Lane (B3366)	W	35
Russel Road (B375)	SW	66
Woodland/ Heathland		
Priority Habitat Inventory- Deciduous	SW	798
Priority Habitat Inventory- Traditional Orchids	N	400
Priority Habitat Inventory- Traditional Orchids	E	Bordering Site

Priority Habitat Inventory- Deciduous	S	<50
Priority Habitat Inventory- Deciduous	S	192
Priority Habitat Inventory- Deciduous	S	744
Priority Habitat Inventory- Deciduous	SW	573
Historic Buildings/ Listed buildings/ Archaeological sites		
Grade II Listed Buildings		
Railings with gateway and end piers to front of Halliford Manor	N	180
The old manor house	SW	200
Entrance wall and railings at Battlecrease Hall	SW	325
Dunally House, Dunally Lodge	SW	495
Gate piers and entrance wall to Thamesfield house	SW	825
Gate piers to the former mount Felix	S	975
Riverhouse Barn	SE	703
Sensitive land uses e.g. Farmland, allotments, commercial fish farms		
Thamesfield farm and allotments	SE	987
Grange farm	N	482
Longmere Farm	E	246
Vicarage Farm	NE	376
Nearest surface water e.g. Rivers and streams		
Marina	S	52
Fishery	S	<50
River Thames	SE	400
Groundwater (sensitivity)		
According to the Environment Agency, the site is not located within a groundwater source protection zone. However, it is located over a Primary aquifer (superficial) but there are no recorded bedrock aquifers beneath.		

3.4 Current Monitoring

3.4.1 Landfill gas monitoring is currently being undertaken on a monthly basis.

3.5 Environmental Assessment Levels (EALs)

3.5.1 For the sub-surface migration of landfill gas, Technical Guidance Note LFTGN03 'Guidance on the Management of Landfill Gas' considers that an appropriate environmental benchmark for methane and carbon dioxide is 1% and 1.5% by volume above background respectively. A suitable site specific Environmental Assessment Levels (EALs) for methane at the site is considered to be 1.0% by volume for all landfill gas monitoring boreholes.

3.5.2 In terms of compliance levels for carbon dioxide, industry guidance document 'Perimeter soil gas emissions criteria and associated management' (January 2011) states:-

'Carbon dioxide is a poor choice of gas to regulate emissions from landfills because there are alternative sources in the sub-surface. Because emission based regulation of a gas generated

naturally in the environment at concentrations 0 -20% is not logical, carbon dioxide should not be used for regulating the sub-surface strata outside a landfill unless there is a site specific high risk receptor nearby, such as an underground confined space....'

'An alternative to regulating on compliance limits is to regulate on the reaction to exceeding a carbon dioxide action level'.

3.5.3 This is also addressed in the Environment Agency's Position Statement 'Industry code of practice on perimeter soil gas' (August 2011) which states:-

'We will require operators to set action levels as part of their gas management plan and to monitor perimeter boreholes and assess carbon dioxide concentrations against the action level to prompt investigatory action and inform regular reviews of the conceptual model'.

3.5.4 The document considers that for background carbon dioxide concentrations between 0 - 5% by volume, an action level of 1% above background concentrations is appropriate. Consequently, no compliance levels for carbon dioxide are proposed but action levels of 'background + 1% by volume' are proposed. The site specific EALs for methane and carbon dioxide will be determined following the completion of 12 months background monitoring and it is suggested that this is implemented through a pre-operational condition within the Environmental Permit.

4.0 Landfill Gas Risk Assessment

4.0.1 Landfill Technical Guidance Note LFTGN03 'Guidance on the Management of Landfill Gas' provides guidance on the level of risk assessment that is considered appropriate for different types of sites and states that Tier 1 Hazard Identification and Risk Screening should be sufficient to deal with most of the risks from inert sites. However, this is also dependent on the level of risk and uncertainty specific to the site.

4.0.2 Watersplash Farm is predicted to generate negligible quantities of landfill gas due to the inert nature of the waste. Furthermore, the operator's detailed waste acceptance procedures and Environmental Management Plan will ensure that only inert waste is deposited at the site, thus removing any uncertainty with respect to the potential for the deposition of non-inert wastes. Taking these factors into consideration, it is concluded that the overall level of risk associated with the site is low. A qualitative risk assessment is therefore considered appropriate in order to determine the level of risk from landfill gas at the site.

4.1 Accidents and their Consequences

4.1.1 The Environment Agency's guidance (LFTGN03) requires a number of accident and failure scenarios to be assessed in order to quantify the impact of given events. The reliability of landfill gas control measures and site engineering should be assessed in the risk assessment and the main hazards that could lead to accidental emissions should be identified. LFTGN03 provides examples of general categories of accidents that may potentially affect landfill gas control:

- Loss of containment e.g. leakage, liner failure, spillage;
- Loss of collection and/or treatment capability e.g. failure of pipework, control system, etc;
- Explosions and fires e.g. deep seated landfill fire; and
- Failure of leachate extraction system and the effect on landfill gas extraction.

4.1.2 These scenarios have been assessed as part of the gas risk screening process.

4.2 Qualitative Landfill Gas Risk Assessment

4.2.1 The potential hazards that exist from landfill gas are:-

- Toxicity (acute and chronic);
- Ecotoxicity;
- Fire and explosion;
- Asphyxiation; and
- Odour

4.2.2 The trace components of landfill gas pose an odour and toxicity risk whilst the bulk gases pose a risk of explosion and asphyxiation, although carbon dioxide is also toxic and should be considered in the assessment of toxicity. Explosion and asphyxiation risk is generally related to sub-surface migration and accumulations in enclosed spaces, such as residential or commercial properties, or underground services. Environment Agency document LFTGN03 states that whilst this is more difficult to quantify, for the risk screening stage, the impact assessment should be based on:

- The presence of potential pathways and site specific receptors; and
- A qualitative assessment of the severity of the consequences.

4.2.3 The qualitative assessment for potential receptors located within 1km of the site is provided in Table 3.

Table 3: Qualitative Risk Assessment

Receptor	Hazard	Sensitivity of Receptor	Likelihood of Exposure
Grade II Listed Buildings	Odour, toxicity, asphyxiation and eco-toxicity	High	Very Unlikely
Schools	Odour, toxicity, asphyxiation and eco-toxicity	High	Very Unlikely
Commercial and Industrial Premises	Odour, toxicity, asphyxiation and eco-toxicity	High	Very Unlikely
Public Rights of Way	Odour, toxicity, asphyxiation and eco-toxicity	High	Very Unlikely
Public Highways	Odour, toxicity, asphyxiation and eco-toxicity	High	Very Unlikely
Sensitive Land Uses	Odour, toxicity, asphyxiation and eco-toxicity	High	Very Unlikely
Surface Water	Odour, toxicity, asphyxiation and eco-toxicity	High	Unlikely

4.2.4 Table 4 details the qualitative risk assessment which has been undertaken for the accident and failure scenarios using the risk assessment process and scoring system set out within Environment Agency document LFTGN03. Table 5 provides a justification of the 'likelihood' scores for each of the accident or failure scenarios set out in Table 4.

Table 4: Qualitative Risk Assessment for Accident and Failure Scenarios

Accident/Failure Scenario	Likelihood	Severity of Consequence	Score	Magnitude of Risk
Loss of containment (e.g. leakage, liner failure, spillage)	Extremely unlikely (1)	Minor (1)	1	Insignificant
Loss of collection (e.g. pipework etc)	Extremely unlikely (1)	Minor (1)	1	Insignificant
Explosions and fires	Very Unlikely (2)	Significant (3)	6	Insignificant
Leachate system failure	Extremely Unlikely (1)	Minor (1)	1	Insignificant
Biodegradable Waste Input	Unlikely (3)	Significant (3)	9	Acceptable

Table 5: Justification for assigned 'likelihood' scores

Accident/Failure Scenario	Justification for 'likelihood' score
Loss of containment (e.g. leakage, liner failure, spillage)	The site will be engineered to a high standard and the landfill containment system will be subject to Construction Quality Assurance (CQA) testing. It is therefore extremely unlikely that the containment system will fail or leak.
Loss of collection (e.g. pipework etc)	There will be no landfill gas collection system and any low or negligible concentrations of landfill gas would vent to atmosphere.
Explosions and fires	The proposed waste types are inert in nature and therefore will not be combustible or explosive. Waste acceptance procedures will ensure that potentially flammable or explosive materials are not accepted at the site.
Leachate system failure	The proposed waste types are inert in nature and will not generate leachate. Therefore, there will be no leachate collection or management system within the landfill.
Biodegradable Waste Input	The proposed waste types are inert in nature. However, all wastes entering the site will be subject to detailed waste acceptance procedures. Wastes will only be accepted onto the site if they comply with the list of wastes included in the permit. Basic characterisation will ensure that the waste is suitable for acceptance at the regulated facility however if there is uncertainty regarding the acceptance of wastes at the site, testing may be required. No wastes will be accepted onto the site if there is uncertainty as to its source, conformance with the conditions in the permit and/or its suitability for the intended use. Consequently, it is considered unlikely that biodegradable waste will be accepted at the site.

4.2.5 The results of the qualitative risk assessment show that the most significant accident /failure

scenario is the acceptance of biodegradable waste into the landfill site which would arise from a failure in the operator's waste acceptance procedures.

4.2.6 As set out in the Operating Techniques (Appendix B of the main application), there will be strict waste acceptance procedures in place to minimise the risk of non-compliant wastes being accepted. All site staff will be made aware of the procedures and the requirements of the company Environmental Management. Furthermore, the Operating Techniques details the measures to be taken in the event that unauthorised waste is identified within a load.

4.2.7 As such, is it considered unlikely that biodegradable waste will be deposited within the landfill site.

5.0 Gas Management Plan

5.1 Control Measures

5.1.1 Negligible quantities of landfill gas are predicted to be generated from the site and no active gas management is therefore proposed within the site. The negligible quantities of landfill gas generated would vent passively to atmosphere from the body of waste.

5.2 Landfill Gas Monitoring Plan

5.2.1 The landfill gas monitoring is carried out in accordance with the procedures set out in the Environment Agency's Guidance document LFTGN03 'Guidance on the Management of Landfill Gas'. The proposed monitoring programme is detailed in Table 6.

Table 6: Monitoring Programme

Parameter	Monitoring Frequency
Methane, carbon dioxide, oxygen, meteorological data, atmospheric pressure, differential pressure, temperature.	Monthly for 12 months (i.e. 12 data sets) then quarterly.

5.3 Compliance Levels

5.3.1 Compliance Levels will be set for each borehole following the completion of 12 months background monitoring prior to the placement of waste within any landfill cell. Limits will be set based on guidance set out in the Environment Agency's Technical Guidance Note 03 (LFTGN03) and will be 1% above agreed background levels for methane.

5.3.2 This Landfill Gas Risk Screening Report has demonstrated that the potential for high concentrations of landfill gas is low. However, an appropriate Action Plan is required in the unlikely event that Action Levels set for each borehole are exceeded. Actions Levels have been set at a level which enables the site management to take timely and appropriate action, so that Compliance Levels are not exceeded. Further actions are however documented, in the event that both Action Levels and Compliance Levels are exceeded. The following section sets out the proposed action plan for Watersplash Farm.

5.4 Action Plan

5.4.1 Action Levels for landfill gas have been set in **Error! Reference source not found.**, which give CEMEX the opportunity to take timely and appropriate action in order to avoid the Compliance Levels being exceeded. In the event of methane or flammable gas being recorded within the perimeter monitoring boreholes at concentrations exceeding 10% of the Lower Explosive Limit (LEL), i.e. 0.5% by volume, the following action will be taken:

- The Landfill Manager will be informed;
- The Landfill Manager will assess the risk and may increase the frequency of landfill gas monitoring to determine whether there is an increasing trend in gas concentrations. The Manager will inform the Environment Agency if the trend is considered to be rising.

5.4.2 In the event of methane or flammable gas being detected within the perimeter boreholes at concentrations exceeding 20% of the LEL i.e. 1.0% methane by volume, the following action will be taken:

- The Landfill Manager will be informed;
- The Landfill Manager will assess the risk and may increase the frequency of landfill gas monitoring to determine whether there is an increasing trend in gas concentrations. The Manager may inform the Environment Agency if the trend is considered to be rising;
- The Landfill Manager will make an assessment of whether any receptors are potentially at risk from elevated methane concentrations and if this is considered likely, the need for receptor monitoring will be determined;
- Daily monitoring of the perimeter boreholes will be undertaken until concentrations of methane recorded in the boreholes fall below 1% by volume (20% LEL) and the Landfill Site Manager determines that the normal frequency of monitoring can be resumed; and
- In the unlikely event that methane (flammable gas) concentrations continue to remain elevated, the Landfill Site Manager will determine if remedial action is required. Any action taken will be agreed with the Environment Agency and recorded in the Site Diary.

Carbon Dioxide

5.4.3 Action Levels for carbon dioxide will be set following a 12 month background monitoring period and implemented through a pre-operational condition. The concentrations will be derived using the highest background concentration (% v/v) recorded during the pre-operational phase plus 1.0%. The Action Levels will be reviewed at the end of this period.

5.4.4 In the event of carbon dioxide being recorded within the perimeter monitoring boreholes at concentrations exceeding the Action Levels specified in Table 3, the following action will be taken.

- The Landfill Manager will be informed;
- The Landfill Manager will assess the risk and may increase the frequency of landfill gas monitoring to determine whether there is an increasing trend in gas concentrations. The Manager may inform the Environment Agency if the trend is considered to be rising.

6.0 Conclusion

6.0.1 The proposed waste types will be inert in nature and will not give rise to significant quantities of landfill gas. The negligible quantities of landfill gas generated are unlikely to be under significant pressure which will minimise the likelihood of gas migration. Furthermore, the site will be engineered with a low permeability clay side slope and basal liner, which will further reduce the risk of lateral gas migration. The risk to nearby sensitive receptors associated with the generation and migration of landfill gas is therefore considered to be low.

6.0.2 Background landfill gas monitoring has been undertaken during the pre-operational phase of the site. The results of the monitoring show that negligible concentrations of methane and low to slightly elevated background concentrations of carbon dioxide are recorded within the perimeter monitoring boreholes. These results have been used to set both Action Levels and Compliance Levels for the site.

6.0.3 Detailed waste acceptance criteria will be used to ensure that only inert wastes are accepted at the site. This will prevent unauthorised wastes being accepted. The absence of biodegradable material within the landfill site shall ensure that significant quantities of landfill gas are not produced within the site from waste and the risk to receptors remains low. Furthermore, this shall ensure that odour nuisance, vegetation stress and global atmospheric damage are also avoided.

6.0.4 This Landfill Gas Screening Report has determined that the site will not give rise to significant quantities of landfill gas due to the inert nature of the proposed waste types. The site will be engineered in accordance with the requirements of the Landfill Directive 1999/31/EC. It is considered that, with respect to landfill gas, the site will be compliant with the requirements of the Landfill Directive.

Drawings

CEM/A104530/LOC/01 – Site Location