

Notice of variation with introductory note

Environmental Permitting (England & Wales) Regulations 2010

Cemex UK Materials Ltd

Bleak Hill 1 Landfill
Nea Road
Ringwood
Hampshire
BH24 3PL

Variation application number
EPR/FP3498SZ/V003

Permit number
EPR/FP3498SZ

Bleak Hill 1 Landfill

Permit number EPR/FP3498SZ

Introductory note

This introductory note does not form a part of the notice.

The following notice gives notice of the variation of an environmental permit.

This variation is for an extension of the facility boundary from the current Bleak Hill landfill (referred to as Bleak Hill 1) to include adjacent land to the north (referred to as Bleak Hill 2). The main purpose of the activities at the installation remains the same as for the original permit.

The maximum capacity of the Bleak Hill 1 and 2 landfills are approximately 476,000 cubic meters (857,000 tonnes) and 994,000 cubic meters (1,700,000 tonnes) respectively, giving a total facility capacity of approximately 1,420,000 cubic meters (2,556,000 tonnes).

The permit was issued with the reference EAWML 23963. A new reference CP33235PE was given to the site when they applied under the transitional arrangements in May 2004. The site operated under these references until the issue of the Environmental Permitting Regulations 2007 when the status of the site changed from that of an "Installation" to one of a "Waste Facility" to record this event the references of the permit were changed to EAWML210007 and EPR/FP3498SZ under which they are now regulated.

The Schedules specify the changes made to the original permit.

Schedule 1 of the notice lists any conditions that have been deleted, Schedule 2 of the notice lists any amended conditions and Schedule 3 of the notice lists any conditions that have been added. The new site plan is attached in Schedule 7.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

Status Log of permit

Detail	Date	Response Date
Application CP3235PE (EAWML 23963)	Duly made 07/05/04	
Additional Information Received		11/02/05
Additional Information Received		15/02/05
Permit determined EPR/CP3235PE	19/04/05	
Operator name change	22/07/05	
Variation EPR/CP3235PE/V002 determined	19/09/06	
Variation EPR/CP3235PE determined	27/03/07	
Application EPR/FP3498SZ/V003 (reference 210007)	Duly made 01/12/10	
Additional Information Received (60311 JLightfoot002.docx)		08/03/11
Additional Information Received (60311 JLightfoot003Rev2.docx)		30/03/11
Additional Information Received (Bleak Hill Revised Figures)		31/03/11
Variation EPR/ FP3498SZ determined	23/08/11	

End of Introductory note

Notice of variation

Environmental Permitting (England and Wales) Regulations 2010



**Permit number
EPR/FP3498SZ**

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 varies the environmental permit issued to

Cemex UK Materials Limited (“the operator”)

whose registered office is

**CEMEX House
Coldharbour Lane
Thorpe
Surrey
TW20 8TD**

company registration number 04895833

to operate a regulated facility at

**Bleak Hill 1 Landfill
Nea Road
Ringwood
Hampshire
BH24 3PL**

to the extent set out in the schedules.

The notice shall take effect from **23/08/2011**

Name	Date
Ian Brindley	23/08/2011

Authorised on behalf of the Environment Agency

Schedule 1 – conditions to be deleted

All conditions are deleted

Schedule 2 – conditions to be amended

None

Schedule 3 – conditions to be added

The following conditions as a result of the application made by the operator

Conditions

1 Management

1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
 - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.
- 1.1.4 The operator shall comply with the requirements of an approved competence scheme.

1.2 Finance

- 1.2.1 The financial provision for meeting the obligations under this Permit shall be as set out in the Agreement made between the CEMEX UK Operations Limited and the Agency dated 29th September 2008 as varied by a Deed of Variation dated 31st January 2011 (as varied by further Deeds of Variation from time to time). The operator shall accordingly ensure that the Permit is and remains throughout its subsistence a Permit to which the Deed relates and the operator shall produce evidence of such provision whenever required by the Agency.

2 Operations

2.1 Permitted activities

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the "activities").

2.2 The site

- 2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 7 to this permit.

2.3 Operating techniques

- 2.3.1 (a) The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in

schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.

- (b) If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan specified in schedule 1, table S1.2 or otherwise required under this permit, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.

2.4 Landfill Engineering

- 2.4.1 No construction of any new cell shall commence until the operator has submitted construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.
- 2.4.2 The construction of a new cell shall take place only in accordance with the approved construction proposals unless:
 - (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or
 - (b) a change has otherwise been agreed in writing by the Environment Agency.
- 2.4.3 The operator shall submit a CQA Validation Report to the Environment Agency as soon as practicable following the construction of the new cell.
- 2.4.4 No construction of landfill infrastructure shall commence until the operator has submitted relevant construction proposals or a written request to use previous construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.
- 2.4.5 The construction of the landfill infrastructure shall take place only in accordance with the approved construction proposals unless:
 - (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or
 - (b) a change has otherwise been agreed in writing by the Environment Agency.
- 2.4.6 The operator shall submit a CQA Validation Report as soon as practicable following the construction of the landfill infrastructure.
- 2.4.7 Where pollution controls are immediately necessary to prevent an incident or accident, then conditions 2.4.4 and 2.4.5 do not apply and the relevant landfill infrastructure may be constructed, provided that the construction proposals are submitted to the Environment Agency as soon as practicable.
- 2.4.8 For the purposes of conditions 2.4.1, 2.4.3 and 2.4.4, the Environment Agency shall be deemed to be satisfied where it has not, within the period of four weeks from the date of receipt of the relevant construction proposals or CQA Validation Report, either:
 - (a) confirmed whether or not it is satisfied; or
 - (b) informed the operator that it requires further information.
- 2.4.9 Where the Environment Agency has required further information under condition 2.4.8(a), the Environment Agency shall be deemed to be satisfied where it has not, within the period of four weeks from the date of receipt of the further information, either:

- (a) confirmed whether or not it is satisfied; or
- (b) informed the operator that it requires further information.

2.5 Waste acceptance

2.5.1 Wastes shall only be accepted for disposal if:

- (a) they are listed in schedule 2, and
- (b) they are inert waste, and
- (c) they are not liquid waste (including waste waters but excluding sludge), and
- (d) all the relevant waste acceptance procedures have been completed, and
- (e) they fulfil the relevant waste acceptance criteria, and
- (f) they have not been diluted or mixed solely to meet the relevant waste acceptance criteria, and
- (g) they are wastes which have been treated, except for wastes for which treatment is not technically feasible.

2.5.2 The operator shall visually inspect:

- (a) without unloading it, waste that is not in an enclosed container or enclosed vehicle on arrival at the landfill; and
- (b) waste at the point of deposit;

and shall satisfy itself that it conforms to the basic characterisation documentation submitted by the holder.

2.5.3 Where the operator has taken samples to establish that the waste is in conformity with the documentation submitted by the holder then the samples taken shall be retained for at least one month and results of any analysis for at least two years.

2.5.4 The operator on accepting each delivery of waste shall provide a receipt to the person delivering it.

2.5.5 The total quantity of waste that shall be deposited in the landfill shall be limited by the pre-settlement levels shown on drawing ESID5.

2.5.6 The quantity of waste that is deposited in the landfill in any year shall not exceed the limits in schedule 1 table S1.3.

2.5.7 The operator shall maintain and implement a system which ensures that a record is made of the quantity, characteristics, date of delivery and, where practicable, origin of any waste that is received for disposal or recovery and of the identity of the producer, or in the case of multiple collection vehicles, of the collector of such waste. Any information regarded by the operator as commercially confidential shall be clearly identified in the record.

2.6 Closure and aftercare

2.6.1 The operator shall maintain a closure and aftercare management plan.

3 Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to water, air or land.
- 3.1.2 The limits for landfill gas arising from the facility set out in schedule 3, tables S3.2 shall not be exceeded.
- 3.1.3 The operator shall submit to the Environment Agency a review of the Hydrogeological Risk Assessment:
- (a) between nine and six months prior to the sixth anniversary of the granting of the permit, and
 - (b) between nine and six months prior to every subsequent six years after the sixth anniversary of the granting of the permit.

3.2 Emissions of substances not controlled by emission limits

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan;
 - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Odour

- 3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.
- 3.3.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan;
 - (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.4 Noise and vibration

3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

3.4.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan;
- (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.5 Monitoring

3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring and any other actions for the parameters specified in the following tables in schedule 3 to this permit:

- (a) Groundwater specified in table S3.1 and 3.5;
- (b) Landfill gas specified in table S3.2 and 3.3; and
- (c) Surface water specified in table S3.4.

3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

3.5.3 A topographical survey of the site referenced to Ordnance Datum shall be carried out:

- (a) annually, or prior to the disposal of waste in any new cell or new development area of the landfill whichever is the shorter period, and
- (b) following closure of the landfill or part of the landfill.

The topographical survey shall be used to produce a plan of a scale adequate to show the surveyed features of the site.

4 Information

4.1 Records

4.1.1 All records required to be made by this permit shall:

- (a) be legible;
- (b) be made as soon as reasonably practicable;
- (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and

- (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
 - (i) the results of groundwater monitoring;
 - (ii) landfill gas monitoring;
 - (iii) waste types and quantities;
 - (iv) the specification and as built drawings of the basal and sidewall engineering systems

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:

- (a) a review of the results of the monitoring and assessment carried out in accordance with this permit against the relevant assumptions, parameters and results in the risk assessments submitted in relation to this installation and any agreed amendments thereto;
- (b) the topographical surveys required by condition 3.4.3 other than those submitted as part of a CQA validation report;
- (c) the volumetric difference (reported in cubic metres) between the most recent topographical survey and the previous annual topographical survey i.e. the additional volume of the landfill void that is occupied by waste;
- (d) an assessment of the settlement behavior of the landfill body based on the difference between the most recent topographical survey and previous annual topographical survey for the areas of the landfill which did not receive waste between the surveys;
- (e) a calculation of the remaining capacity (reported in cubic metres) derived from the pre-settlement contours and the most recent topographical survey;

4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
- (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.2; and
- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.

- 4.2.4 Within one month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.

4.3 Notifications

- 4.3.1 The Environment Agency shall be notified without delay following the detection of:

- (a) any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution;
- (b) the breach of a limit specified in the permit; or
- (c) any significant adverse environmental effects.

- 4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

- 4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

- 4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

- (a) any change in the operator's trading name, registered name or registered office address; and
- (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

- (a) any change in the operator's name or address; and
- (b) any steps taken with a view to the dissolution of the operator.

- 4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- (a) the Environment Agency shall be notified at least 14 days before making the change; and
- (b) the notification shall contain a description of the proposed change in operation.

In any other case:

- (a) the death of any of the named operators (where the operator consists of more than one named individual);
- (b) any change in the operator's name(s) or address(es); and

- (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

4.4 Interpretation

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.
- 4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made “without delay”, in which case it may be provided by telephone.

Landfills for inert waste schedules

Schedule 1 - Operations

Table S1.1 activities

Description of activities	Limits of activities
D1: Deposit into or on to land	Receipt, handling, storage and disposal of inert waste into or onto land, consisting of the types and quantities specified in conditions 2.5, as an integral part of landfilling.

Table S1.2 Operating techniques

Description	Parts	Date Received
Application	Sections 2 to 7 of the report titled Site Operating Plan (Job number 212173-00) dated August 2010 in response to section 3a – technical standards, Part C4 of the application form.	04/11/10
Reply to Schedule 5 Notice	Letter from Arup dated 8 March 2011 (ref 60311 JLightfoot002.docx) in response to Schedule 5 Notice by the Environment Agency dated 8 February 2011.	08/03/11
Reply to request for further information	Sections 6 of the letter dated 30 March 2011 (ref 60311 JLightfoot003Rev2.docx) from Arup in response to the Environment Agency letter dated 18/03/11 – HRA Quantitative Risk Assessment.	30/03/11

Table S1.3 Annual waste input limits

Category	Limit Tonnes/ Year
Inert Waste	608,000

Schedule 2 - List of permitted wastes

Table S2.1 Permitted waste types		
Waste code	Description	Restrictions
10	WASTES FROM THERMAL PROCESSES	
10 11	Wastes from manufacture of glass and glass products	
10 11 03	waste glass-based fibrous materials	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 ⁽²⁾	Selected C&D waste only
17 01 02	Bricks ⁽²⁾	Selected C&D waste only
17 01 03	Tiles and Ceramics ⁽²⁾	Selected C&D waste only
17 01 07	Mixtures of concrete, bricks, tiles and ceramics ⁽²⁾	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 ⁽¹⁾	Excluding topsoil, peat; excluding soils 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 INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS	
20 01	Separately collected fractions (except 15 01)	
20 01 02	Glass	
20 02	Garden and park wastes (including cemetery waste)	
20 02 02	Soil and stones (only from garden and parks waste) ⁽¹⁾	Only from garden and parks waste; excluding topsoil, peat
<p>1. For the purposes of waste acceptance, soil includes naturally occurring sands and clays</p> <p>2. Selected construction and demolition waste (C & D waste): with low contents of other types of materials (like metals, plastic, organics, wood, rubber, etc). No C & D waste from constructions, polluted with inorganic or organic dangerous substances, e.g. because of production processes in the construction, soil pollution, storage and usage of pesticides or other dangerous substances, etc., unless it is made clear that the demolished construction was not significantly polluted. No C & D waste from constructions, treated, covered or painted with materials, containing dangerous substances in significant amounts.</p> <p>If it is unsure whether the waste fulfils the definition of inert waste, or is uncontaminated, then testing of the waste must be undertaken to confirm compliance with the criteria for inert waste as specified in The Landfill (England and Wales) Regulations 2002 as amended. The origin of all waste must be known.</p>		

Schedule 3 – Emissions and monitoring

Table S3.1 Trigger levels for emissions into groundwater and monitoring requirements

Monitoring point reference	Parameter	Limit (including unit)	Reference Period	Monitoring frequency	Monitoring standard or method
W501P1, W103, M02, M09, BL2DIS	Ammoniacal Nitrogen	5 mg/l	Spot Sample	Quarterly	Monitoring to be carried out in accordance with Environment Agency Document 'LFTGN02: Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water' unless otherwise agreed with the Environment Agency.
W501P1, W103, M02, M09, BL2DIS	Chloride	100 mg/l	Spot Sample	Quarterly	
W501P1, W103, M02, M09, BL2DIS	Zinc	1 mg/l	Spot Sample	Quarterly	

Table S3.2 Landfill gas in external monitoring boreholes – limits and monitoring requirements

Monitoring point Ref. /description	Parameter	Limit (including units)	Monitoring frequency	Monitoring standard or method
301S1	Carbon Dioxide	6.2 %v/v	Monthly	Monitoring to be carried out in accordance with Environment Agency Document 'LFTGN03: Guidance on Management of Landfill Gas' unless otherwise agreed with the Environment Agency.
301S2		6.2 %v/v		
401S1		9.9 %v/v		
401S2		9.9 %v/v		
402S1		9.3 %v/v		
G403S1		7.1 %v/v		
G403S2		7.1 %v/v		
G403S3		7.1 %v/v		
G403S4		7.1 %v/v		
G504S1		5.5 %v/v		
G505S1		7.8 %v/v		
G506S1		6.5 %v/v		
G507		5.2 %v/v		
G508		3.8 %v/v		
W501S1		4.9 %v/v		
W502S1		4.7 %v/v		
W502S2		4.7 %v/v		
301S1, 301S2, 401S1, 401S2, 402S1, G403S1, G403S2, G403S3, G403S4, G504S1, G505S1, G506S1, G507, G508, W501S1, W502S1, W502S2		Methane		
	Oxygen	no limit		
	Atmospheric Pressure	no limit		
	Differential Pressure	no limit		
	Meteorological Data - (Barometric Pressure) ⁽¹⁾			

1. Barometric pressure readings shall be undertaken during landfill gas monitoring

Table S3.3 Landfill gas monitoring requirements

Monitoring point Ref. /description	Parameter	Monitoring frequency	Monitoring standard or method
In waste monitoring boreholes identified on Figure M1	Methane Carbon Dioxide Oxygen Atmospheric Pressure Differential Pressure Meteorological Data - (Barometric Pressure) ⁽¹⁾	Monthly	Monitoring to be carried out in accordance with Environment Agency Document 'LFTGN03: Guidance on Management of Landfill Gas' unless otherwise agreed with the Environment Agency.

1. Barometric pressure readings shall be undertaken during landfill gas monitoring

Table S3.4 Surface water – other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
HB1, HB2, LAKE 1, HAMBL1DIS, WB1, S1, S2, S3	Ammoniacal Nitrogen, Chloride, Suspended Solids	Quarterly	Monitoring to be carried out in accordance with Environment Agency Document 'LFTGN02: Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water' unless otherwise agreed with the Environment Agency.	
HB1, HB2, LAKE 1, HAMBL1DIS, WB1, S1, S2, S3	COD, Dissolved Oxygen, BOD, pH, Alkalinity, TOC (filtered), TON, Sulphate, Iron, Lead, Magnesium, Manganese, Nickel, Potassium, Sodium, Cadmium, Chromium, Copper, Zinc, Calcium, Electrical Conductivity, Suspended Solids	Annually		

Table S3.5 Groundwater – other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
W103, W106A, W107, W108, W109, W110, W111, W112, W201, W202, W203, W204, 401P1, 402P1, 301, W302, W303, W501, W502, W102, M01, M02, M03, M04, M05, M06, M07, M08, M09, M10	Groundwater Level (mAOD)	Monthly	Monitoring to be carried out in accordance with Environment Agency Document 'LFTGN02: Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water' unless otherwise agreed with the Environment Agency.	
W103, W106A, W107, W112, W201P1, W201P2, W202, W203P1, W203P2, W204P1, W204P2, W302, W303, 301P1, 401P1, 402P1, W501P1, W502P1, M02, M04, M08, M09, BL2DIS	Ammoniacal Nitrogen, Chloride, Zinc	Quarterly		
W103, W106A, W107, W112, W201P1, W201P2, W202, W203P1, W203P2, W204P1, W204P2, W302, W303, 301P1, 401P1, 402P1, W501P1, W502P1, M02, M04, M08, M09, BL2DIS	Ammoniacal Nitrogen, Chloride, Zinc, Alkalinity, Cadmium, Calcium, Chromium, COD, Electrical Conductivity, Copper, Dissolved Oxygen, Iron, Lead, Magnesium, Manganese, Nickel, TON, pH, Potassium, Sodium, TOC, Sulphate	Annually		

Schedule 4 - Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Surface water Parameters as required by condition 3.4.1	Monitoring points referenced in table S3.4	Every 3 months	1 January, 1 April, 1 July, 1 October
	Monitoring points referenced in table S3.4	Every 12 months	1 January
Groundwater Parameters as required by condition 3.4.1	Monitoring points referenced in table S3.1	Every 3 months	1 January, 1 April, 1 July, 1 October
	Monitoring points referenced in table S3.5	Every 3 months	1 January, 1 April, 1 July, 1 October
		Every 12 months	1 January
Landfill gas monitoring Parameters as required by condition 3.4.1	Monitoring points referenced in table S3.2	Every 3 months	1 January, 1 April, 1 July, 1 October
	Monitoring points referenced in table S3.3	Every 3 months	October

Table S4.2 Reporting forms

Media/parameter	Reporting Format	Date of Form
Controlled water	Form water 1 or other reporting format to be agreed in writing with the Environment Agency	27/06/11
Groundwater	Form groundwater 1 or other reporting format to be agreed in writing with the Environment Agency	27/06/11
Landfill gas	Form Gas 1 or other reporting format to be agreed in writing with the Environment Agency	27/06/11
Waste Return	Waste Return Form RATS2E	27/06/11
Landfill topographical surveys and interpretation	Reporting format to be agreed in writing with the Environment Agency	-

Schedule 5 - Notification

This page outlines the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution	
To be notified within 24 hours of detection	
Date and Time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	Notification period

(c) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B to be supplied as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 - Interpretation

“*annually*” means once every year.

“*authorised officer*” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“*Construction Proposals*”;

- for new cells, means written information at a level of detail appropriate to the complexity and pollution risk, on stability assessment (where relevant) and the construction quality assurance (CQA) programme in relation to the new cell.
- for landfill infrastructure, means the design, specifications of materials selected, stability assessment (where relevant) and the construction quality assurance (CQA) programme in relation to the landfill infrastructure.

“*CQA Validation Report*” means the final “as built” construction and engineering details of the new cell or of the Landfill Infrastructure. It must provide a comprehensive record of the construction and must include, where relevant:

- The results of all testing required by the CQA programme - this must include the records of any failed tests with a written explanation, details of the remedial action taken, referenced to the appropriate secondary testing;
- Plans showing the location of all tests;
- “As-built” plans and sections of the works;
- Copies of the site engineer’s daily records;
- Records of any problems or non-compliance and the solution applied;
- Any other site specific information considered relevant to proving the integrity of the new cell or Landfill Infrastructure;
- Validation by a qualified person that all of the construction has been carried out in accordance with the construction proposals.

“*Landfill Infrastructure*” means any specified element of the:

- surface water drainage systems;
- groundwater monitoring boreholes;
- landfill gas monitoring boreholes;

within the Site.

“*Liquids*” means any liquid other than leachate within the landfill.

“*New Cell*” means any new cell, part of a cell or other similar new area of the Site where waste deposit is to commence after issue of this permit and can comprise:

- groundwater under-drainage system;

- sub-grade;
- artificially established geological barriers;
- cell or area surface water drainage system;
- side wall subgrade and containment systems;

for the new cell.

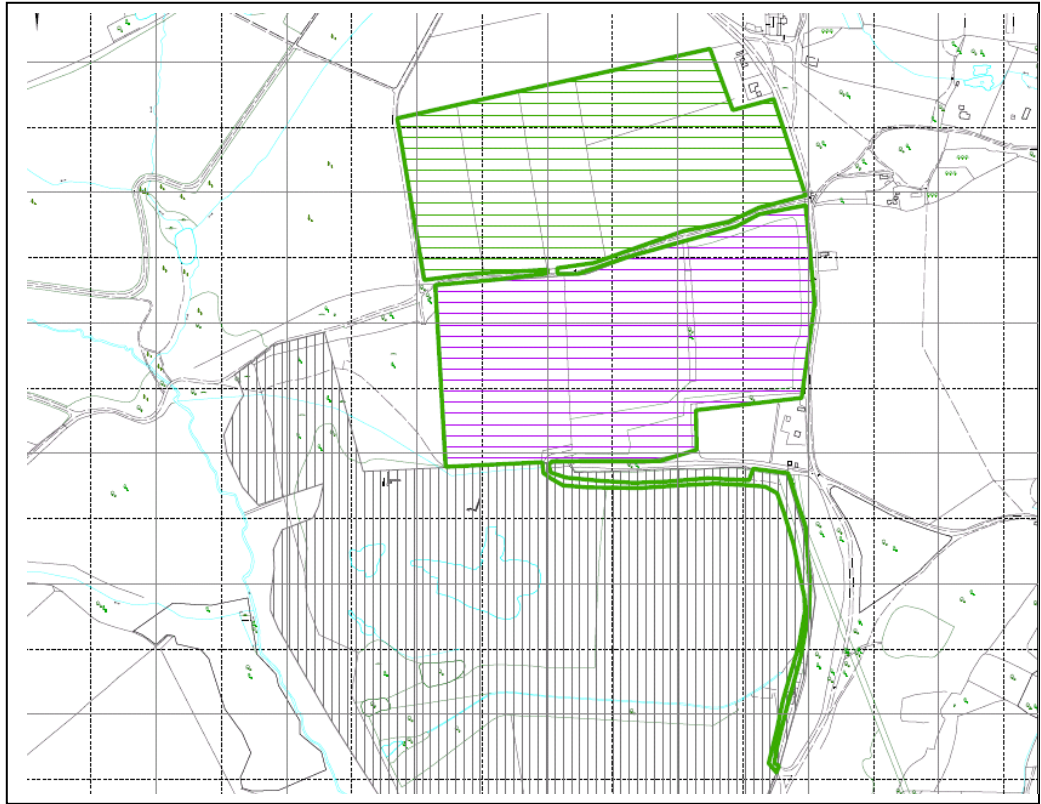
“*No impact*” means that the change made to the construction process will not alter the agreed design criteria, specification or performance in a way that has a negative effect.

“*quarter*” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

“*Waste code*” means the six digit code referable to a type of waste in accordance with the List of Wastes (England) Regulations 2005, or List of Wastes (Wales) Regulations 2005, as appropriate, and in relation to hazardous waste, includes the asterisk.

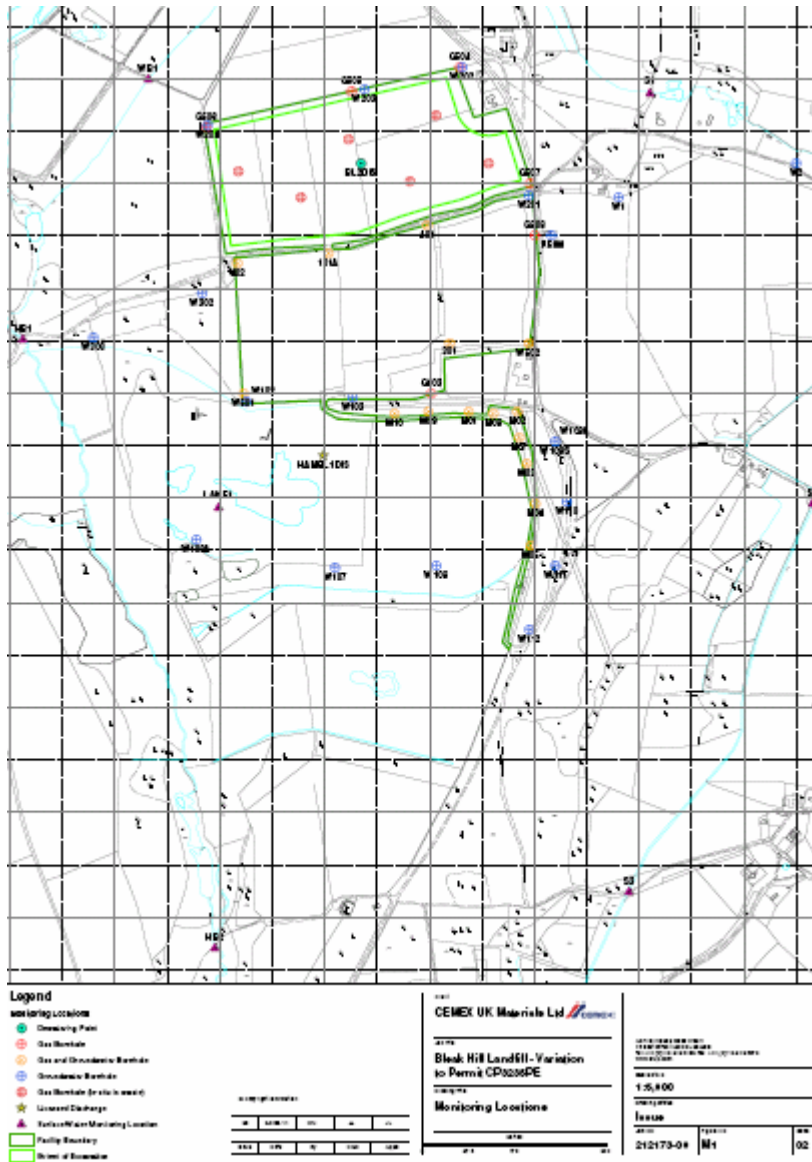
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than the limit.

Schedule 7 - Site plan



["©Crown Copyright. All rights reserved. Environment Agency, 100026380, 2011."]

Monitoring Locations



["©Crown Copyright. All rights reserved. Environment Agency, 100026380, 2011."]

END OF PERMIT

Permit Number: FP3498SZ

Operator: Cemex UK Limited

Facility: Bleak Hill Landfill

Form Number: Water1 / DD/MM/YY

Reporting of emissions to water (other than to sewer) and land for the period from DD/MM/YYYY to DD/MM/YYYY

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]

[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.

[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.

[3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.

[4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed
(Authorised to sign as representative of Operator)

Date.....

Permit Number: FP3498SZ

Variation application number
EPR/FP3498SZ/V003

Operator: Cemex UK Limited

Date issued: 23 August 2011

Facility: **Bleak Hill Landfill**

Form Number: **Groundwater1 / DD/MM/YY**

Reporting of groundwater monitoring for the period from DD/MM/YYYY to DD/MM/YYYY

Monitoring Point	Substance / Parameter	Trigger level	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
W103, W106A, W107, W108, W109, W110, W111, W112, W201, W202, W203, W204, 401P1, 402P1, 301, W302, W303, W501, W502, W102, M01, M02, M03, M04, M05, M06, M07, M08, M09, M10, BL2DIS	Groundwater Level (maOD)						
W501P1, W103, M09, M02, BL2DIS	Ammoniacal Nitrogen	5 mg/l	Spot Sample				
W501P1, W103, M09, M02, BL2DIS	Chloride	100 mg/l	Spot Sample				
W501P1, W103, M09, M02, BL2DIS	Zinc	1 mg/l	Spot Sample				

[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.

[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.

- [3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
- [4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed
(Authorised to sign as representative of Operator)

Date.....

Permit Number: **FP3498SZ**

Operator: **Cemex UK Limited**

Facility: **Bleak Hill landfill**

Form Number: **LFG1 / DD/MM/YY**

Reporting of landfill gas monitoring for the period from DD/MM/YYYY to DD/MM/YYYY

Monitoring Point	Substance / Parameter	Compliance limit	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
301S1	Carbon dioxide	6.2 % v/v					
301S2		6.2 % v/v					
401S1		9.9 % v/v					
401S2		9.9 % v/v					
402S1		9.3 % v/v					
G403S1		7.1 % v/v					
G403S2		7.1 % v/v					
G403S3		7.1 % v/v					
G403S4		7.1 % v/v					
G504S1		5.5 % v/v					
G505S1		7.8 % v/v					
G506S1		6.5 % v/v					
G507		5.2 % v/v					
G508		3.8 % v/v					
W501S1		4.9 % v/v					
W502S1		4.7 % v/v					
W502S2		4.7 % v/v					
301S1, 301S2, 401S1, 401S2, 402S1, G403S1, G403S2, G403S3, G403S4, G504S1, G505S1, G506S1, G507, G508, W501S1, W502S1, W502S2		Methane	1 % v/v				
	Oxygen	No limit					
	Atmospheric pressure						
	Differential pressure						
	Meteorological						

Monitoring Point	Substance / Parameter	Compliance limit	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
	cal data						

- [1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.
- [2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.
- [3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
- [4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed
 (Authorised to sign as representative of Operator)

Date.....