

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Veolia ES Landfill Limited

Highmoor Quarry Landfill Doctor Lane Scouthead Oldham OL4 3SA

Variation application number

EPR/UP3630KS/V003

Permit number

EPR/UP3630KS

Highmoor Quarry Landfill Permit number EPR/UP3630KS

Introductory note

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

The following gives notice of the variation and consolidation of this environmental permit. We have issued this variation to consolidate the original permit and subsequent variations and to update some of the conditions following a statutory review of permits in the landfill sector. We have also converted the permit into the current EPR permit format using modern conditions.

The site is located at NGR SD 973066.

The site is reported by the operator to have accepted inert, hazardous and non-hazardous waste, and after 2004 the site was classified as a non-hazardous landfill.

The operator reports that Highmoor Landfill is now a closed landfill that ceased taking waste in December 2013, with the exception of soils for restoration, and has subsequently been fully capped and restored. The site is reported to have been progressively capped through 2014 with capping completed in October 2014 and the majority of restoration works completed by end 2014. The site has not formally moved into the aftercare phase.

The Environment Agency has a duty, under the Environmental Permitting (England and Wales) Regulations 2016, regulation 34(1), to periodically review permits. As a result of that review we have identified a number of necessary changes we must make to the permit to reflect current legislation and best practice. These changes principally relate to:

- The addition of a standard condition for landfill gas management at landfills that accept biodegradable waste;
- A change to the hydrogeological risk assessment condition so that reviews are undertaken every 6
 years rather than every 4 years;
- Standard leachate and groundwater quality monitoring tables (schedule 3); and
- A standard reporting table (schedule 4).

Schedule 1 to this notice summarises the changes we have made to this permit.

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

Status log of the permit			
Description	Date	Comments	
WML/1042 (EAWML53565) determined	10/02/97	Issued to Leigh Bardon Limited for keeping, treating and disposing of controlled waste.	
BU9092IR (superseded WML/1042 EAWML53565) determined	04/11/05	PPC permit issued to Onyx Highmoor Limited	
Permit Variation EPR/BU9092IR	04/01/08		
Transfer application EPR/UP3630KS/T001 (full transfer of EPR/BU9092IR	Duly made 22/06/09	Full transfer application	

Transfer EPR/UP3630KS/T001	Determined 10/02/10	Permit transferred to Veolia ES Landfill Limited
Additional information received	05/03/10	
Permit variation EPR/ UP3630KS/V002	Duly made 15/03/10	
Permit variation EPR/ UP3630KS/V002	Determined 22/12/10	Variation to amend the site boundary, add a mobile flare, amend monitoring points for surface water, groundwater and landfill gas. Amend permitted waste tonnages and amend leachate monitoring point references.
Variation determined and Environment Agency Landfill Sector Review Permit reviewed Variation determined EPR/UP3630KS/V003 Permit EPR/UP3630KS Billing ref: XP3707SS	26/08/2020	Varied and consolidated permit issued in modern condition format.

Other Part A installation permits relating to this installation		
Operator Permit number Date of issue		_
Infinis (Re-Gen) Limited	EPR/GP3232PZ	30/05/13

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies and consolidates

Permit number

EPR/UP3630KS

Issued to

Veolia ES Landfill Limited ("the operator")

whose registered office is

210 Pentonville Road London N1 9JY

company registration number 997695

to operate a regulated facility at

Highmoor Quarry Landfill Doctor Lane Scouthead Oldham OL4 3SA

to the extent set out in the schedules.

The notice shall take effect from 26/08/2020

Name	Date
Andy Bett	26/08/2020

Authorised on behalf of the Environment Agency

Schedule 1

The following conditions were varied as a result of an Environment Agency initiated variation - the table summarises the latest changes to the landfill permit template, however the permit may contain more changes than this where the permit has not been varied to recent template conditions.

Condition	Description of change
1.6	Generic condition to reflect the requirements of the Waste Framework Directive.
2.7.1(a)	Added reference to a specific table to clarify what wastes are permitted by which permitted activity.
2.9	Revised gas management condition imposed for all landfills.
3.1.1	Generic condition imposed on all activities to simplify sub-conditions
3.1.4 to 3.1.5	Revised conditions to reflect the terminology used by the Groundwater Directive for 'hazardous substances' and to require hydrogeological risk assessment reviews are submitted every 6 years rather than every 4 years.
	Sub-condition that referred to emission of 'non-hazardous pollutants' deleted. Such emissions are regulated by condition 3.2.
	Two sub-conditions that referred to limits in specific tables in schedule 3 deleted as they are now covered by 3.1.1.
3.6	Revised generic pests condition imposed on all activities.
4.2.2	Amended to ensure that information on 'annual production/ treatment' (Schedule 4, Table S4.2) is provided in February each year where annual reports may be submitted at other times of the year.
4.2.2(a)	Text expanded to clarify the details we require in an annual report.
4.2.2(h)	New condition requiring annual submission of a plan of monitoring and extraction locations with reference to monitoring tables in schedule 3
4.3.1	Generic notifications condition added.
Schedules	
Table S1.1	Activity references amended to reflect changes introduced by Industrial Emissions Directive (2010/75/EU).
	Leachate storage moved from a specified activity to Directly Associated Activities.
Table S1.4	Amended to clarify that restoration is a separate part of the activity unrelated to landfill cover.
Schedule 2	Standard list of wastes added.
Schedule 3	Monitoring and compliance tables have been re-ordered so that those with compliance limits appear first.
	Standard monitoring frequency and parameters have been included for certain routine monitoring requirements
Table S4.1	Amended to only require regular reports of information that relate to compliance limits.
Table S4.2	Additional details of landfill gas extracted required to improve climate change data quality.
Table S4.3	Amended to include natural gas as an energy source for consistency with other sectors.
Schedule 6	Definitions added to clarify meaning of:
	Inert waste
	Exceeded
	Hazardous substance
	Medicinal product

Condition	Description of change
	Previous year Waste acceptance criteria Waste acceptance procedure

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/UP3630KS

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/UP3630KS/V003 authorising,

Veolia ES Landfill Limited ("the operator"),

whose registered office is

210 Pentonville Road London N1 9JY

company registration number 997695

to operate part of an installation at

Highmoor Quarry Landfill Doctor Lane Scouthead Oldham OL4 3SA

to the extent authorised by and subject to the conditions of this permit.

Name	Date
Andy Bett	26/08/2020

1

Authorised on behalf of the Environment Agency

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 set out in the agreement made between the operator and the Environment Agency dated 10/03/10 shall be maintained by the operator throughout the subsistence of this permit and the operator shall produce evidence of such provision whenever required by the Environment Agency.
- 1.2.1 The operator shall ensure that the charges it makes for the disposal of waste in the landfill cover all of the following:
 - (a) the costs of setting up and operating the landfill;
 - (b) the costs of the financial provision required by condition 1.2.1; and
 - (c) the estimated costs for the closure and aftercare of the landfill.

1.3 Energy efficiency

- 1.3.1 The operator shall:
 - (a) take appropriate measures to ensure that energy is used efficiently in the activities;
 - (b) Review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
 - (c) Implement any appropriate measures identified by a review.

1.4 Multiple operator installations

1.4.1 Where the operator notifies the Environment Agency under condition 4.3.1 (a) or 4.3.1 (c), the operator shall also notify without delay the other operator(s) of the installation of the same information.

1.5 Efficient use of raw materials

- 1.5.1 The operator shall:
 - (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;

- (b) maintain records of raw materials and water used in the activities;
- (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
- (d) take any further appropriate measures identified by a review.

1.6 Avoidance, recovery and disposal of wastes produced by the activities

- 1.6.1 The operator shall:
 - take appropriate measures to ensure that waste produced by the activities is avoided or reduced, or where waste is produced it is recovered wherever practicable or otherwise disposed of in a manner which minimises its impact on the environment;
 - (b) review and record at least every four years whether changes to those measures should be made; and
 - (c) take any further appropriate measures identified by a review.

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 red on the site plan at schedule 7 to this permit, which includes the area edged in green on the site plan that represents the extent of the site covered by the other operator of the installation.

2.3 Operating techniques

- 2.3.1 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.
- 2.3.2 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 or other documentation ("plan") specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, 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 Pre-operational conditions

2.4.1 The operations specified in schedule 1, table S1.3 shall not commence until the measures specified in that table have been completed.

2.5 Landfill Engineering

- 2.5.1 No construction of any new cell of the landfill shall commence until the operator has submitted construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.
- 2.5.2 Where the operator proposes to construct any new cell other than the first cell, but proposes no change from the design of the most recently approved cell which could have any impact on the performance of any element of the design, no construction of the new cell shall commence until the operator has submitted a cell layout drawing and the Environment Agency has confirmed that it is satisfied with the cell layout drawing.
- 2.5.3 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.
- 2.5.4 No disposal of waste shall take place in a new cell until the operator has submitted a CQA Validation Report and the Environment Agency has confirmed that it is satisfied with the CQA Validation Report.
- 2.5.5 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.
- 2.5.6 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.
- 2.5.7 The operator shall submit a CQA Validation Report within four weeks of the completion of the construction of the relevant landfill infrastructure, or other time period agreed in writing with the Environment Agency.
- 2.5.8 Where pollution controls are immediately necessary to prevent an incident or accident, then conditions 2.6.5 and 2.6.6 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.
- 2.5.9 For the purposes of conditions 2.6.1, 2.6.2, 2.6.4 and 2.6.5, 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.
- 2.5.10 Where the Environment Agency has required further information under condition 2.6.9(b), 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.

2.6 Waste acceptance

- 2.6.1 Wastes shall only be accepted for disposal if:
 - (a) they are listed in schedule 2, table S2.1; and

- (b) they are non- hazardous waste; and
- (c) they are not whole used tyres (other than bicycle tyres and tyres with an outside diameter of more than 1400mm); and
- (d) they are not shredded used tyres; and
- (e) they are not liquid waste (including waste waters but excluding sludge); and
- (f) they are not chemical substances from research and development or teaching activities, for example laboratory residues, which are unidentified and/or which are new and whose effects on man and/or the environment are unknown; and
- (g) all the relevant waste acceptance procedures have been completed; and
- (h) they fulfil the relevant waste acceptance criteria; and
- (i) they have not been diluted or mixed solely to meet the relevant waste acceptance criteria; and
- (j) they are wastes which have been treated, except for: inert wastes for which treatment is not technically feasible; or it is waste other than inert waste and treatment would not reduce its quantity or the hazards which it poses to human health or the environment; and
- (k) they are wastes with a code beginning with 07 05 and 16 03, they shall exclude waste medicinal products and pharmaceutically active waste materials arising from their manufacture.
- 2.6.2 Wastes shall only be accepted for restoration where:
 - (a) they are listed in schedule 2, table S2.4; and
 - (b) they are accepted in accordance with a restoration plan approved in writing by the Environment Agency.
- 2.6.3 For the following activities referenced in schedule 1, table S1.1 (A1 to A4 etc.) The operator shall:
 - (a) visually inspect without unloading it, waste that is not in an enclosed container or enclosed vehicle on arrival at the landfill and waste at the point of deposit; and
 - (b) be satisfied that the waste conforms to the requirements of condition 2.7.1.
- 2.6.4 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.
- 2.6.5 The operator on accepting each delivery of waste shall provide a receipt to the person delivering it.
- 2.6.6 The total quantity of waste that shall be deposited in the landfill shall be limited by the pre-settlement levels shown on drawing ESID4.
- 2.6.7 The quantity of waste that is deposited in the landfill in any year shall not exceed the limits in schedule 1, table S1.4.
- 2.6.8 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 municipal waste and 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.

2.7 Leachate levels

2.7.1 The limits for the level of leachate listed in schedule 3, table S3.1 shall not be exceeded.

2.8 Closure and aftercare

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

2.9 Landfill gas management

- 2.9.1 The operator shall take appropriate measures, including, but not limited to, those specified in any approved landfill gas management plan, to:
 - (a) collect landfill gas; and
 - (b) control the migration of landfill gas.
- 2.9.2 The operator shall use the collected landfill gas to produce energy. If the collected landfill gas cannot be used to produce energy, the operator shall use appropriate measures to flare or treat the gas in accordance with an approved landfill gas management plan.
- 2.9.3 The operator shall:
 - (a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a revised landfill gas management plan;
 - (b) implement the revised landfill gas management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3 Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 The limits in schedule 3 shall not be exceeded.
- 3.1.2 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3, tables S3.2 and S3.3.
- 3.1.3 The limits given in schedule 3, table S3.2 shall not be exceeded, save that compliance with an emission limit in that table shall include incorporation of the uncertainty allowance stated in Environment Agency guidance LFTGN 05 and LFTGN 08.
- 3.1.4 The operator shall prevent the input of any hazardous substances from the activities into groundwater.
- 3.1.5 The operator shall submit to the Environment Agency a review of the Hydrogeological Risk Assessment:
 - (a) between nine and six months prior to the fourth anniversary of the granting of the permit; and
 - (b) between nine and six months prior to every subsequent six years after the fourth 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

- which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits:
- (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.

3.4 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 which identifies and minimises the risks of pollution from noise and vibration;
 - (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 specified in the following tables in schedule 3 to this permit:
 - (a) Leachate specified in tables S3.1 and S3.8;
 - (b) Point source emissions specified in tables S3.2;
 - (c) Groundwater specified in tables S3.3 and S3.6;
 - (d) Landfill gas specified in tables S3.4, S3.5 and S3.7;
 - (e) Surface water specified in table S3.9.
- 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 and shall be used to produce a plan of a scale adequate to show the surveyed features of the site:
 - (a) annually; and
 - (b) prior to the disposal of waste in any new cell or new development area of the landfill; and
 - (c) following closure of the landfill or part of the landfill.

3.6 Pests

- 3.6.1 The activities shall not give rise to the presence of pests which are likely to cause pollution, hazard or annoyance outside the boundary of the site. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.
- 3.6.2 The operator shall:
 - (a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a pests management plan which identifies and minimises risks of pollution hazard or annoyance from pests;
 - (b) implement the pests management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

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) sub-surface landfill gas monitoring;
 - (iii) leachate levels, quality and quantities;
 - (iv) landfill gas generation and collection;
 - (v) waste types and quantities;
 - (vi) the specification and as built drawings of the basal, sidewall and capping 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 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 ('the annual report') shall be submitted to the Environment Agency by 31st January each year or such other date as may be agreed in writing by the Agency, with the exception of 4.2.2(c) that must be provided by the end of February 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. The review will

- include written descriptions of the improvements made to operational performance during the year, action plans developed and planned improvements for the coming year;
- (b) the energy consumed at the site, reported in the format set out in schedule 4 table S4.3
- (c) the annual production/treatment set out in schedule 4, table S4.2;
- (d) the topographical surveys required by condition 3.5.3 other than those submitted as part of a CQA validation report;
- 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;
- (f) an assessment of the settlement behaviour 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;
- (g) a calculation of the remaining capacity (reported in cubic metres) derived from the presettlement contours and the most recent topographical survey;
- (h) a plan(s) ('the monitoring and extraction point plan MEPP') showing the locations of existing and any new leachate and landfill gas extraction and monitoring points.
- 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) using the forms specified in schedule 4, table S4.4 or other reporting format as agreed in writing with the Environment Agency; 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.
- 4.2.5 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.3 Notifications

- 4.3.1 In the event:
 - (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
 - (i) inform the Environment Agency;
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident; and
 - (iii) take the measures necessary to prevent further possible incidents or accidents.
 - (b) of a breach of any permit condition the operator must immediately—
 - (i) inform the Environment Agency; and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time.

- (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, 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 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.
- 4.3.4 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.

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 "immediately", in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1 a	activities			
Activity reference	WFD Annex I and II operations (where applicable)	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
A1	D5 –Specially engineered landfill	Section 5.2 Part A(1)(a), The disposal of waste in a landfill.	Landfill for non-hazardous waste	Receipt, handling, storage and disposal of wastes, consisting of the types and quantities specified in conditions 2.6, as an integral part of landfilling.
Directly Ass	sociated Activities			
A2	R1 – use principally as a fuel to generate energy	-	Pre-treatment and utilisation of landfill gas for energy recovery in an appliance with a rated thermal input <50 MW	Treatment and utilisation of landfill gas arising from the landfill.
A3	D8 – Biological treatment of waste	-	Treatment of leachate in a facility with a capacity of <50 t/day	Leachate arising from the landfill.
A4	N/A	-	Temporary storage of waste (leachate)	Leachate arising from the landfill.
A5	N/A	-	Flaring of landfill gas for disposal in an appliance (emergency mobile flare only).	Landfill gas arising from the landfill.
A6	D6 – release to water body except seas/ oceans	-	Discharges of site drainage from the landfill.	From surface water management system to point of entry to controlled waters.
A7	N/A	-	Storage of fuel for operation of plant and equipment.	Fuel storage tank.

Table S1.1 a	Table S1.1 activities			
Activity reference	WFD Annex I and II operations (where applicable)	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
A8	N/A	-	Pipework between the leachate treatment plant and public sewerage system	From the point of discharge from the leachate treatment plant to the point where the pipework leaves the land under the control of the operator.
A9	N/A		Leachate recirculation	Leachate arising from the landfill – to be agreed in writing with the Environment Agency before recirculation recommences.

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	The response to questions 2.1, 2.2, 2.3, 2.4, 2.5, 2.7, 2.8, 2.9 and 2.11 in part B of the Application Form excluding sections:	06/05/2004
	B2.1.5	
	B2.2.1-15 repeatable group 3 – (single liner design),	
	B2.2.31	
	B2.2.42	
	B2.2.48	
Response to Schedule 4 Notice dated 17/03/2005	All parts	Response dated 22/04/2005
Response to request for	All parts	Response dated
information dated 27/04/2005		25/05/2005
Response to request for information dated 26/09/2005	All parts	Response dated 21/10/2005
Response to request for information dated 01/11/2005	All parts	Response dated 91/11/2005

Table S1.2 Operating techniques		
Description	Parts	Date Received
Correspondence relating to compliance with Improvement Condition 1 (BU9092IR) provided by the Operator.	All parts	Report received 09/01/06 Ref: 05529649.501/A.0
Request for further information regarding Improvement Condition 1 (BU9092IR). Email dated 26/7/06	Report ref:9092 (MD1)	Email dated 1/08/06
Correspondence relating to compliance with Improvement Condition 3 (BU9092IR) provided by the Operator.	Revised leakage detection system monitoring proposals	Received by e-mail on 03/11/06
Correspondence relating to compliance with Improvement Condition 4 (BU9092IR) provided by the Operator.	Review of the Existing Perimeter Landfill Gas Monitoring Infrastructure at Highmoor Landfill Site to determine the adequacy of the borehole spacing.	Report received 07/02/2006 Ref: AN/330/031.
Correspondence relating to compliance with Improvement Condition 6 (BU9092IR) provided by the Operator.	Boundary and Receptor Aerial Emissions Monitoring and Management Plan.	Received on 27/4/07 Ref: BU9092IR Version 2 April 2007 – Boundary and Receptor Aerial Emissions Monitoring and Management Plan.
Correspondence relating to compliance with Improvement Condition 8 (BU9092IR) provided by the Operator.	Plan for the control of fugitive emissions from the leachate storage tank.	Received by e-mail on 02/05/06.
Correspondence relating to compliance with Improvement Condition 9 (BU9092IR) provided by the Operator.	Surface Water Management Plan, produced by Egniol Limited. Comments sent with regard to this submission Ref: 9092(MD2) via email on the 31/07/2006.	Report received 19/05/2006 Ref: AN/330/045.
Correspondence relating to compliance with Improvement Condition 9 (BU9092IR) provided by the Operator.	Revised drawing showing surface water monitoring points. With the exception of monitoring point SW2 which is superseded by SW2 in the Permit Table S4.8.	Plan 2065SWM02-E submitted by email 2.2.07

Description	Parts	Date Received
Correspondence relating to compliance with Improvement Condition 10 (BU9092IR) provided by the Operator.	Noise Assessment and Noise Management Plan and comments regarding the Noise Improvement Conditions set out in the response to the second official draft Variation Notice, under Schedule 1, Table S1.3, References 7 and 8.	19 May 2006 Ref AN/330/044
Correspondence relating to compliance with Improvement Condition 11 (BU9092IR) provided by the Operator.	Noise Assessment and Noise Management Plan and comments regarding the Noise Improvement Conditions set out in the response to the second official draft Variation Notice, under Schedule 1, Table S1.3, References 7 and 8.	19 May 2006 Ref AN/330/044
Correspondence relating to compliance with Improvement Condition 12 (BU9092IR) provided by the Operator.	Revised Management Plan for the recirculation of leachate. Confirmed by email from the Agency on 29/11/06 and 8/2/07.	Received on 03/11/06 by email
Amended drawings ESID6A, ESID7A and ESID8	All parts	Received on 15/11/06 and 17/11/06 by email
Amended drawings ESID7A (dated 13/04/07) and ESID8 (dated 21/06/07)	All parts	Received on 30/07/07 by email
Amended drawings ESID4, ESID5, ESID11	All parts	Dated 16/02/10
Amended drawings ESID2	All parts	Dated 02/03/10
Amended drawings ESID4, ESID5, ESID11	All parts	Dated 05/03/10
Additional Information	CQA Plan – Retro Drilling for Gas Wells	Dated: 13/07/2010 (Approved: 13/07/2010)
Amended drawings	ESID6A - Installation Details – Dated: 16/02/2010 ESID7A – Leachate Management Plan – Dated: 16/02/2010 ESID08 – Landfill Gas Management – Dated: 16/02/2010	Dated: 04/08/2010
Additional Information	Construction of Cell 5A - Installation of Side Slope Soil Protection Layer	Received: 20/11/2010 (Approved: 29/11/2010)

Description	Parts	Date Received
Additional Information	CQA Validation Report for Completion of Cell 5A Northern Side Slope Lining	Received: 22/11/2010
	System	(Approved: 08/12/2010)
Additional Information	Proposal for alternative leachate dipping method	Received: 06/01/2011
	, , , , , , , , , , , , , , , , , , ,	(Approved: 06/01/2011)
Amended drawing	Ref:330Q1210_Site - Site as at 15/12/2010	Received: 31/01/2011
Additional Information	CQA Report - Construction of Cell 5A - Construction of slip geotextile supporting	Received: 11/03/2011
	bund	(Approved: 28/03/2011)
Additional Information	Proposals regarding capping works in accordance with approved generic CQA Plan	Received: 29/03/2011
	 Ref: Highmoor Landfill Site, Capping and Restoration, Specification and 	(Approved: 31/03/2011)
	Construction Quality Assurance Plan, Containment Quality Associates Ltd, May	
	2006	
additional Information	CQA Plan – Retro Drilling for Gas Wells	Received: 11/05/2011
dditional Information	Proposals for Installation of side slope protection layer (Part 4)	Received: 26/05/2011
		(Approved: 07/06/2011)
Additional Information	Revision to CQA Plan for Cell 5b regarding leachate collection – Ref: P278-HM-	Received: 27/05/2011
	5AB-05-R02	(Approved: 01/08/2011)
Additional Information	Proposals regarding perimeter revised gas trigger levels – Adjacent to Cell 5b	Received: 03/02/2012
	, 5 5, 5, 5, 5, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6,	(Approved: 03/02/2012)
Additional Information	Proposals regarding the use of fine material to minimise odour	Received: 15/02/2012

Table S1.2 Operating techniques		
Description	Parts	Date Received
Additional Information	Proposal / Risk Assessment regarding temporary windy tipping area (Initial	Received: 21/02/2012
	correspondence: 21/10/2011)	(Approved: 21/02/2012)
Additional Information	CQA Plan – Re drilling of LC5, MP9 and MP12	Received: 05/04/2012
		(Approved: 05/04/2012)
Requested Information – Updated Plan	Odour Monitoring and Management Plan	Received: 19/06/2012
Additional Information	CQA Validation Report for Capping & Restoration of Cells 1, 2 and 3b – Ref:	Received: 31/01/2013
	P278/ML/EA/170113	(Approved: 14/05/2013)
Additional Information	Proposals regarding Mecoprop (MCPP) – Alternative substance suggested for next	Received by email: 08/08/2013
	HRA, given background levels (initial correspondence:01/10/2012	(Approved: 12/09/2013)
Additional Information	CQA Plan – Installation of additional leachate wells in Phase 1 and 2	Received by email: 27/09/2013
		(Approved: 06/11/2013)

Table S1.3 Pre-operational measures for future development		
Reference	Operation	Pre-operational Measures
4	The discharge of leachate to sewer	At least six months prior to the discharge of leachate to sewer the Operator shall undertake an assessment of the impact on the water environment from leachate currently stored onsite. The operator shall use the methodology prescribed in the Agency's guidance 'Environmental Assessment and Appraisal of BAT' (Ref. IPPC H1) in making this assessment. The Operator shall identify substances present in the effluent that are considered significant, and submit proposed emission limit values for these substances in the form of a report. Flow rate must also be considered as part of this assessment. The report shall also include an effluent monitoring plan for any key substances identified and an action plan to reduce releases of those substances that are considered significant as part of the H1 Assessment. The operator shall implement any improvements or measures as agreed in writing with the Environment Agency. The proposals shall be implemented by the Operator from the date of approval in writing by the Agency.

Table S1.4 Annual waste input limits	
Category	Limit Tonnes/ Year
Non-hazardous waste	750,000
Inert waste	750,000
Wastes for restoration	To be agreed in accordance with the Restoration Plan approved under condition 2.6.2
Total	750,000

Schedule 2 – List of permitted wastes

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste		
Waste code	Description	
01	Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals	
01 01	wastes from mineral excavation	
01 01 01	wastes from mineral metalliferous excavation	
01 01 02	wastes from mineral non-metalliferous excavation	
01 03	wastes from physical and chemical processing of metalliferous minerals	
01 03 06	tailings other than those mentioned in 01 03 04 and 01 03 05	
01 03 08	dusty and powdery wastes other than those mentioned in 01 03 07	
01 03 09	red mud from alumina production other than the wastes mentioned in 01 03 07	
01 04	wastes from physical and chemical processing of non-metalliferous minerals	
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07	
01 04 09	waste sand and clays	
01 04 10	dusty and powdery wastes other than those mentioned in 01 04 07	
01 04 11	wastes from potash and rock salt processing other than those mentioned in 01 04 07	
01 04 12	tailings and other wastes from washing and cleaning of minerals other than those mentioned in 01 04 07 and 01 04 11	
01 04 13	wastes from stone cutting and sawing other than those mentioned in 01 04 07	
01 05	drilling muds and other drilling wastes	
01 05 04	freshwater drilling muds and wastes	
01 05 07	barite-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06	
01 05 08	chloride-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06	

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste		
Waste code	Description	
02	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing	
02 01	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing	
02 01 01	sludges from washing and cleaning	
02 01 03	plant-tissue waste	
02 01 04	waste plastics (except packaging)	
02 01 06	animal faeces, urine and manure (including spoiled straw), effluent, collected separately and treated off-site	
02 01 07	wastes from forestry	
02 01 09	agrochemical waste other than those mentioned in 02 01 08	
02 01 10	waste metal	
02 02	wastes from the preparation and processing of meat, fish and other foods of animal origin	
02 02 01	sludges from washing and cleaning	
02 02 03	materials unsuitable for consumption or processing	
02 02 04	sludges from on-site effluent treatment	
02 03	wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation	
02 03 01	sludges from washing, cleaning, peeling, centrifuging and separation	
02 03 02	wastes from preserving agents	
02 03 03	wastes from solvent extraction	
02 03 04	materials unsuitable for consumption or processing	
02 03 05	sludges from on-site effluent treatment	
02 04	wastes from sugar processing	
02 04 01	soil from cleaning and washing beet	

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste		
Description		
off-specification calcium carbonate		
sludges from on-site effluent treatment		
wastes from the dairy products industry		
materials unsuitable for consumption or processing		
sludges from on-site effluent treatment		
wastes from the baking and confectionery industry		
materials unsuitable for consumption or processing		
wastes from preserving agents		
sludges from on-site effluent treatment		
wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)		
wastes from washing, cleaning and mechanical reduction of raw materials		
wastes from spirits distillation		
wastes from chemical treatment		
materials unsuitable for consumption or processing		
sludges from on-site effluent treatment		
Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard		
wastes from wood processing and the production of panels and furniture		
waste bark and cork		
sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04		
wastes from pulp, paper and cardboard production and processing		
waste bark and wood		
green liquor sludge (from recovery of cooking liquor)		

Table S2.1 Permitt	ed waste types for disposal at a landfill for non-hazardous waste
Waste code	Description
03 03 05	de-inking sludges from paper recycling
03 03 07	mechanically separated rejects from pulping of waste paper and cardboard
03 03 08	wastes from sorting of paper and cardboard destined for recycling
03 03 09	lime mud waste
03 03 10	fibre rejects, fibre-, filler- and coating-sludges from mechanical separation
03 03 11	sludges from on-site effluent treatment other than those mentioned in 03 03 10
04	Wastes from the leather, fur and textile industries
04 01	wastes from the leather and fur industry
04 01 01	fleshings and lime split wastes
04 01 02	liming waste
04 01 06	sludges, in particular from on-site effluent treatment containing chromium
04 01 07	sludges, in particular from on-site effluent treatment free of chromium
04 01 08	waste tanned leather (blue sheetings, shavings, cuttings, buffing dust) containing chromium
04 01 09	wastes from dressing and finishing
04 02	wastes from the textile industry
04 02 09	wastes from composite materials (impregnated textile, elastomer, plastomer)
04 02 10	organic matter from natural products (for example grease, wax)
04 02 15	wastes from finishing other than those mentioned in 04 02 14
04 02 17	dyestuffs and pigments other than those mentioned in 04 02 16
04 02 20	sludges from on-site effluent treatment other than those mentioned in 04 02 19
04 02 21	wastes from unprocessed textile fibres
04 02 22	wastes from processed textile fibres
05	Wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste		
Waste code	Description	
05 01	wastes from petroleum refining	
05 01 10	sludges from on-site effluent treatment other than those mentioned in 05 01 09	
05 01 13	boiler feedwater sludges	
05 01 14	wastes from cooling columns	
05 01 16	sulphur-containing wastes from petroleum desulphurisation	
05 01 17	bitumen	
05 06	wastes from the pyrolytic treatment of coal	
05 06 04	waste from cooling columns	
05 07	wastes from natural gas purification and transportation	
05 07 02	wastes containing sulphur	
06	Wastes from inorganic chemical processes	
06 03	wastes from the MFSU of salts and their solutions and metallic oxides	
06 03 14	solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13	
06 03 16	metallic oxides other than those mentioned in 06 03 15	
06 05	sludges from on-site effluent treatment	
06 05 03	sludges from on-site effluent treatment other than those mentioned in 06 05 02	
06 06	wastes from the MFSU of sulphur chemicals, sulphur chemical processes and desulphurisation processes	
06 06 03	wastes containing sulphides other than those mentioned in 06 06 02	
06 09	wastes from the MSFU of phosphorous chemicals and phosphorous chemical processes	
06 09 02	phosphorous slag	
06 09 04	calcium-based reaction wastes other than those mentioned in 06 09 03	

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste		
Waste code	Description	
06 11	wastes from the manufacture of inorganic pigments and opacificiers	
06 11 01	calcium-based reaction wastes from titanium dioxide production	
06 13	wastes from inorganic chemical processes not otherwise specified	
06 13 03	carbon black	
07	Wastes from organic chemical processes	
07 01	wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals	
07 01 12	sludges from on-site effluent treatment other than those mentioned in 07 01 11	
07 02	wastes from the MFSU of plastics, synthetic rubber and man-made fibres	
07 02 12	sludges from on-site effluent treatment other than those mentioned in 07 02 11	
07 02 13	waste plastic	
07 02 15	wastes from additives other than those mentioned in 07 02 14	
07 02 17	waste containing silicones other than those mentionned in 07 02 16	
07 03	wastes from the MFSU of organic dyes and pigments (except 06 11)	
07 03 12	sludges from on-site effluent treatment other than those mentioned in 07 03 11	
07 04	wastes from the MFSU of organic plant protection products (except 02 01 08 and 02 01 09), wood preserving agents (except 03 02) and other biocides	
07 04 12	sludges from on-site effluent treatment other than those mentioned in 07 04 11	
07 05	wastes from the MFSU of pharmaceuticals	
07 05 12	sludges from on-site effluent treatment other than those mentioned in 07 05 11	
07 05 14	solid wastes other than those mentioned in 07 05 13	
07 06	wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics	

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste	
Waste code	Description
07 06 12	sludges from on-site effluent treatment other than those mentioned in 07 06 11
07 07	wastes from the MFSU of fine chemicals and chemical products not otherwise specified
07 07 12	sludges from on-site effluent treatment other than those mentioned in 07 07 11
08	Wastes from the manufacture, formulation, supply and use (MFSU) of coatings (paints, varnishes and vitreous enamels), adhesives, sealants and printing inks
08 01	wastes from MFSU and removal of paint and varnish
08 01 12	waste paint and varnish other than those mentioned in 08 01 11
08 01 14	sludges from paint or varnish other than those mentioned in 08 01 13
08 01 16	aqueous sludges containing paint or varnish other than those mentioned in 08 01 15
08 01 18	wastes from paint or varnish removal other than those mentioned in 08 01 17
08 02	wastes from MFSU of other coatings (including ceramic materials)
08 02 01	waste coating powders
08 02 02	aqueous sludges containing ceramic materials
08 03	wastes from MFSU of printing inks
08 03 07	aqueous sludges containing ink
08 03 15	ink sludges other than those mentioned in 08 03 14
08 03 18	waste printing toner other than those mentioned in 08 03 17
08 04	wastes from MFSU of adhesives and sealants (including water proofing products)
08 04 10	waste adhesives and sealants other than those mentioned in 08 04 09
08 04 12	adhesive and sealant sludges other than those mentioned in 08 04 11
08 04 14	aqueous sludges containing adhesives or sealants other than those mentioned in 08 04 13
09	Wastes from the photographic industry

aste types for disposal at a landfill for non-hazardous waste
Description
wastes from the photographic industry
photographic film and paper containing silver or silver compounds
photographic film and paper free of silver or silver compounds
single-use cameras without batteries
single-use cameras containing batteries other than those mentioned in 09 01 11
Wastes from thermal processes
wastes from power stations and other combustion plants (except 19)
bottom ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04)
coal fly ash
fly ash from peat and untreated wood
calcium-based reaction wastes from flue-gas desulphurisation in solid form
calcium-based reaction wastes from flue-gas desulphurisation in sludge form
bottom ash, slag and boiler dust from co-incineration other than those mentioned in 10 01 14
fly ash from co-incineration other than those mentioned in 10 01 16
wastes from gas cleaning other than those mentioned in 10 01 05, 10 01 07 and 10 01 18
sludges from on-site effluent treatment other than those mentioned in 10 01 20
aqueous sludges from boiler cleansing other than those mentioned in 10 01 22
sands from fluidised beds
wastes from fuel storage and preparation of coal-fired power plants
wastes from cooling-water treatment
wastes from the iron and steel industry
wastes from the processing of slag
unprocessed slag

Table S2.1 Permitted wa	Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste		
Waste code	Description		
10 02 08	solid wastes from gas treatment other than those mentioned in 10 02 07		
10 02 10	mill scales		
10 02 12	wastes from cooling-water treatment other than those mentioned in 10 02 11		
10 02 14	sludges and filter cakes from gas treatment other than those mentioned in 10 02 13		
10 02 15	other sludges and filter cakes		
10 03	wastes from aluminium thermal metallurgy		
10 03 02	anode scraps		
10 03 05	waste alumina		
10 03 16	skimmings other than those mentioned in 10 03 15		
10 03 18	carbon-containing wastes from anode manufacture other than those mentioned in 10 03 17		
10 03 20	flue-gas dust other than those mentioned in 10 03 19		
10 03 22	other particulates and dust (including ball-mill dust) other than those mentioned in 10 03 21		
10 03 24	solid wastes from gas treatment other than those mentioned in 10 03 23		
10 03 26	sludges and filter cakes from gas treatment other than those mentioned in 10 03 25		
10 03 28	wastes from cooling-water treatment other than those mentioned in 10 03 27		
10 03 30	wastes from treatment of salt slags and black drosses other than those mentioned in 10 03 29		
10 04	wastes from lead thermal metallurgy		
10 04 10	wastes from cooling-water treatment other than those mentioned in 10 04 09		
10 05	wastes from zinc thermal metallurgy		
10 05 01	slags from primary and secondary production		
10 05 04	other particulates and dust		
10 05 09	wastes from cooling-water treatment other than those mentioned in 10 05 08		
10 05 11	dross and skimmings other than those mentioned in 10 05 10		

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste		
Waste code	Description	
10 06	wastes from copper thermal metallurgy	
10 06 01	slags from primary and secondary production	
10 06 02	dross and skimmings from primary and secondary production	
10 06 04	other particulates and dust	
10 06 10	wastes from cooling-water treatment other than those mentioned in 10 06 09	
10 07	wastes from silver, gold and platinum thermal metallurgy	
10 07 01	slags from primary and secondary production	
10 07 02	dross and skimmings from primary and secondary production	
10 07 03	solid wastes from gas treatment	
10 07 04	other particulates and dust	
10 07 05	sludges and filter cakes from gas treatment	
10 07 08	wastes from cooling-water treatment other than those mentioned in 10 07 07	
10 08	wastes from other non-ferrous thermal metallurgy	
10 08 04	particulates and dust	
10 08 09	other slags	
10 08 11	dross and skimmings other than those mentioned in 10 08 10	
10 08 13	carbon-containing wastes from anode manufacture other than those mentioned in 10 08 12	
10 08 14	anode scrap	
10 08 16	flue-gas dust other than those mentioned in 10 08 15	
10 08 18	sludges and filter cakes from flue-gas treatment other than those mentioned in 10 08 17	
10 08 20	wastes from cooling-water treatment other than those mentioned in 10 08 19	
10 09	wastes from casting of ferrous pieces	
10 09 03	furnace slag	

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste		
Description		
casting cores and moulds which have not undergone pouring other than those mentioned in 10 09 05		
casting cores and moulds which have undergone pouring other than those mentioned in 10 09 07		
flue-gas dust other than those mentioned in 10 09 09		
other particulates other than those mentioned in 10 09 11		
waste binders other than those mentioned in 10 09 13		
waste crack-indicating agent other than those mentioned in 10 09 15		
wastes from casting of non-ferrous pieces		
furnace slag		
casting cores and moulds which have not undergone pouring, other than those mentioned in 10 10 05		
casting cores and moulds which have undergone pouring, other than those mentioned in 10 10 07		
flue-gas dust other than those mentioned in 10 10 09		
other particulates other than those mentioned in 10 10 11		
waste binders other than those mentioned in 10 10 13		
waste crack-indicating agent other than those mentioned in 10 10 15		
wastes from manufacture of glass and glass products		
waste glass-based fibrous materials		
particulates and dust		
waste preparation mixture before thermal processing, other than those mentioned in 10 11 09		
waste glass other than those mentioned in 10 11 11		
glass-polishing and -grinding sludge other than those mentioned in 10 11 13		
solid wastes from flue-gas treatment other than those mentioned in 10 11 15		
sludges and filter cakes from flue-gas treatment other than those mentioned in 10 11 17		
solid wastes from on-site effluent treatment other than those mentioned in 10 11 19		

Table S2.1 Permitted	Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste		
Waste code	Description		
10 12	wastes from manufacture of ceramic goods, bricks, tiles and construction products		
10 12 01	waste preparation mixture before thermal processing		
10 12 03	particulates and dust		
10 12 05	sludges and filter cakes from gas treatment		
10 12 06	discarded moulds		
10 12 08	waste ceramics, bricks, tiles and construction products (after thermal processing)		
10 12 10	solid wastes from gas treatment other than those mentioned in 10 12 09		
10 12 12	wastes from glazing other than those mentioned in 10 12 11		
10 12 13	sludge from on-site effluent treatment		
10 13	wastes from manufacture of cement, lime and plaster and articles and products made from them		
10 13 01	waste preparation mixture before thermal processing		
10 13 04	wastes from calcination and hydration of lime		
10 13 06	particulates and dust (except 10 13 12 and 10 13 13)		
10 13 07	sludges and filter cakes from gas treatment		
10 13 10	wastes from asbestos-cement manufacture other than those mentioned in 10 13 09		
10 13 11	wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10		
10 13 13	solid wastes from gas treatment other than those mentioned in 10 13 12		
10 13 14	waste concrete and concrete sludge		
11	Wastes from chemical surface treatment and coating of metals and other materials; non-ferrous hydro-metallurgy		
11 01	wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising)		
11 01 10	sludges and filter cakes other than those mentioned in 11 01 09		
11 01 14	degreasing wastes other than those mentioned in 11 01 13		

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste		
Waste code	Description	
11 02	wastes from non-ferrous hydrometallurgical processes	
11 02 03	wastes from the production of anodes for aqueous electrolytical processes	
11 02 06	wastes from copper hydrometallurgical processes other than those mentioned in 11 02 05	
11 05	wastes from hot galvanising processes	
11 05 01	hard zinc	
11 05 02	zinc ash	
12	Wastes from shaping and physical and mechanical surface treatment of metals and plastics	
12 01	wastes from shaping and physical and mechanical surface treatment of metals and plastics	
12 01 01	ferrous metal filings and turnings	
12 01 02	ferrous metal dust and particles	
12 01 03	non-ferrous metal filings and turnings	
12 01 04	non-ferrous metal dust and particles	
12 01 05	plastics shavings and turnings	
12 01 13	welding wastes	
12 01 15	machining sludges other than those mentioned in 12 01 14	
12 01 17	waste blasting material other than those mentioned in 12 01 16	
12 01 21	spent grinding bodies and grinding materials other than those mentioned in 12 01 20	
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 01	paper and cardboard packaging	
15 01 02	plastic packaging	
15 01 03	wooden packaging	

Table S2.1 Permitte	ed waste types for disposal at a landfill for non-hazardous waste						
Waste code	Description						
15 01 04	metallic packaging						
15 01 05	composite packaging						
15 01 06	mixed packaging						
15 01 07	glass packaging						
15 01 09	textile packaging						
15 02	absorbents, filter materials, wiping cloths and protective clothing						
15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02						
16	Wastes not otherwise specified in the list						
16 01	end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08)						
16 01 12	brake pads other than those mentioned in 16 01 11						
16 01 17	ferrous metal						
16 01 18	non-ferrous metal						
16 01 19	plastic						
16 01 20	glass						
16 02	wastes from electrical and electronic equipment						
16 02 14	discarded equipment other than those mentioned in 16 02 09 to 16 02 13						
16 02 16	components removed from discarded equipment other than those mentioned in 16 02 15						
16 03	off-specification batches and unused products						
16 03 04	inorganic wastes other than those mentioned in 16 03 03						
16 03 06	organic wastes other than those mentioned in 16 03 05						
16 08	spent catalysts						

Table S2.1 Permitt	ed waste types for disposal at a landfill for non-hazardous waste						
Waste code	Description						
16 08 01	spent catalysts containing gold, silver, rhenium, rhodium, palladium, iridium or platinum (except 16 08 07)						
16 08 03	spent catalysts containing transition metals or transition metal compounds not otherwise specified						
16 11	waste linings and refractories						
16 11 02	carbon-based linings and refractories from metallurgical processes others than those mentioned in 16 11 01						
16 11 04	other linings and refractories from metallurgical processes other than those mentioned in 16 11 03						
16 11 06	linings and refractories from non-metallurgical processes others than those mentioned in 16 11 05						
17	Construction and demolition wastes (including excavated soil from contaminated sites)						
17 01	concrete, bricks, tiles and ceramics						
17 01 01	concrete						
17 01 02	bricks						
17 01 03	tiles and ceramics						
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06						
17 02	wood, glass and plastic						
17 02 01	wood						
17 02 02	glass						
17 02 03	plastic						
17 03	bituminous mixtures, coal tar and tarred products						
17 03 02	bituminous mixtures other than those mentioned in 17 03 01						
17 04	metals (including their alloys)						
17 04 01	copper, bronze, brass						
17 04 02	aluminium						
17 04 03	lead						

Table S2.1 Permitted w	vaste types for disposal at a landfill for non-hazardous waste							
Waste code	Description							
17 04 04	zinc							
17 04 05	iron and steel							
17 04 06	tin							
17 04 07	mixed metals							
17 04 11	cables other than those mentioned in 17 04 10							
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							
17 05 06	dredging spoil other than those mentioned in 17 05 05							
17 05 08	track ballast other than those mentioned in 17 05 07							
17 06	insulation materials and asbestos-containing construction materials							
17 06 04	insulation materials other than those mentioned in 17 06 01 and 17 06 03							
17 09	other construction and demolition wastes							
17 09 04	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03							
18	Wastes from human or animal health care and/or related research (except kitchen and restaurant wastes not arising from immediate health care)							
18 01	wastes from natal care, diagnosis, treatment or prevention of disease in humans							
18 01 04	wastes whose collection and disposal is not subject to special requirements in order to prevent infection (for example dressings, linen, disposable clothing, diapers)							
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 01	wastes from incineration or pyrolysis of waste							
19 01 02	ferrous materials removed from bottom ash							
19 01 12	bottom ash and slag other than those mentioned in 19 01 11							

Table S2.1 Permitt	ed waste types for disposal at a landfill for non-hazardous waste							
Waste code	Description							
19 01 14	fly ash other than those mentioned in 19 01 13							
19 01 16	boiler dust other than those mentioned in 19 01 15							
19 01 18	pyrolysis wastes other than those mentioned in 19 01 17							
19 01 19	sands from fluidised beds							
19 02	wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)							
19 02 03	premixed wastes composed only of non-hazardous wastes							
19 02 06	sludges from physico/chemical treatment other than those mentioned in 19 02 05							
19 02 10	combustible wastes other than those mentioned in 19 02 08 and 19 02 09							
19 03	stabilised/solidified wastes ¹							
19 03 05	stabilised wastes other than those mentioned in 19 03 04							
19 03 07	solidified wastes other than those mentioned in 19 03 06							
19 04	vitrified waste and wastes from vitrification							
19 04 01	vitrified waste							
19 05	wastes from aerobic treatment of solid wastes							
19 05 01	non-composted fraction of municipal and similar wastes							
19 05 02	non-composted fraction of animal and vegetable waste							
19 05 03	off-specification compost							
19 06	wastes from anaerobic treatment of waste							
19 06 04	digestate from anaerobic treatment of municipal waste							
19 06 06	digestate from anaerobic treatment of animal and vegetable waste							

¹ Stabilisation processes change the dangerousness of the constituents in the waste and thus transform hazardous waste into non-hazardous waste. Solidification processes only change the physical state of the waste (e.g. liquid into solid) by using additives without changing the chemical properties of the waste.

Table S2.1 Permitte	d waste types for disposal at a landfill for non-hazardous waste						
Waste code	Description						
19 08	wastes from waste water treatment plants not otherwise specified						
19 08 01	screenings						
19 08 02	waste from desanding						
19 08 05	sludges from treatment of urban waste water						
19 08 09	grease and oil mixture from oil/water separation containing only edible oil and fats						
19 08 12	sludges from biological treatment of industrial waste water other than those mentioned in 19 08 11						
19 08 14	sludges from other treatment of industrial waste water other than those mentioned in 19 08 13						
19 09	wastes from the preparation of water intended for human consumption or water for industrial use						
19 09 01	solid waste from primary filtration and screenings						
19 09 02	sludges from water clarification						
19 09 03	sludges from decarbonation						
19 09 04	spent activated carbon						
19 09 05	saturated or spent ion exchange resins						
19 09 06	solutions and sludges from regeneration of ion exchangers						
19 10	wastes from shredding of metal-containing wastes						
19 10 01	iron and steel waste						
19 10 02	non-ferrous waste						
19 10 04	fluff-light fraction and dust other than those mentioned in 19 10 03						
19 10 06	other fractions other than those mentioned in 19 10 05						
19 11	wastes from oil regeneration						
19 11 06	sludges from on-site effluent treatment other than those mentioned in 19 11 05						

Table S2.1 Permitted v	waste types for disposal at a landfill for non-hazardous waste						
Waste code	Description						
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified						
19 12 01	paper and cardboard						
19 12 02	ferrous metal						
19 12 03	non-ferrous metal						
19 12 04	plastic and rubber						
19 12 05	glass						
19 12 07	wood other than that mentioned in 19 12 06						
19 12 08	textiles						
19 12 09	minerals (for example sand, stones)						
19 12 10	combustible waste (refuse derived fuel)						
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11						
19 13	wastes from soil and groundwater remediation						
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01						
19 13 04	sludges from soil remediation other than those mentioned in 19 13 03						
19 13 06	sludges from groundwater remediation other than those mentioned in 19 13 05						
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 01	paper and cardboard						
20 01 02	glass						
20 01 08	biodegradable kitchen and canteen waste						
20 01 10	clothes						

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste							
Waste code	Description						
20 01 11	textiles						
20 01 25	edible oil and fat						
20 01 28	paint, inks, adhesives and resins other than those mentioned in 20 01 27						
20 01 30	detergents other than those mentioned in 20 01 29						
20 01 38	wood other than that mentioned in 20 01 37						
20 01 39	plastics						
20 01 40	metals						
20 01 41	wastes from chimney sweeping						
20 02	garden and park wastes (including cemetery waste)						
20 02 01	biodegradable waste						
20 02 02	soil and stones						
20 02 03	other non-biodegradable wastes						
20 03	other municipal wastes						
20 03 01	mixed municipal waste						
20 03 02	waste from markets						
20 03 03	street-cleaning residues						
20 03 04	septic tank sludge						
20 03 06	waste from sewage cleaning						
20 03 07	bulky waste						

Table S2.2 Permitted waste types for restoration							
Waste code	ste code Description						
To be agreed in accordance with the Restoration Plan approved under condition 2.6.2							

Schedule 3 – Emissions and monitoring

Monitoring point reference/ Description	Limit	Monitoring frequency	Monitoring standard and method
Operational Cells or Phases (Any cells or ph	nases that do not have a fina	l engineered cap a	agreed in accordance with the landfill engineering condition, 2.5)
None	None	Monthly	As specified in Environment Agency Guidance LFTGN02 (February 2003) or such other subsequent guidance as may be agreed in writing with the Environment Agency. Or as otherwise agreed with the Agency as part of a leachate monitoring plan.
Non Operational Cells or Phases (Any cells	or phases that have a final e	engineered cap ag	reed in accordance with the landfill engineering condition, 2.5)
Leachate compliance and monitoring points Phase 1, Cell 1 - LW1B, LW1; Phase 2, Cell2A – LW2A, LW2A1; Phase 2, Cell 2B – LW2B, LW2B2; Phase 2, Cell 2C – LW2C2 LW2C; Phase 3, Cell 3A – LW3A, MP9R;	1.5 m above the monitoring point base	Quarterly	As specified in Environment Agency Guidance LFTGN02 (February 2003) or such other subsequent guidance as may be agreed in writing with the Environment Agency. Or as otherwise agreed with the Agency as part of a leachate monitoring plan.
Phase 3, Cell 3B – LC5R, MP12R; Phase 4, Cell 4A – LC6, MP14; Phase 4, Cell 4B – LC7, MP17; Phase 5, Cell 5 – LC8, MP19			

Emission point Ref. & Location	Parameter	Source	Limit (incl unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method	
SWD as detailed on ESID6a	Ammoniacal Nitrogen	Site draining via lagoons	1 mg/l	Spot Sample	Monthly	In accordance with Environment Agency document LFTGN02 (February 2003) 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water' or	
(GR: SD 97435 06933)	рН		>6 and <9 pH units	Spot Sample	Monthly	such other subsequent guidance as may be agreed in writing with the Environment Agency.	
Discharging to Thurston Clough Brook (GR: SD 97437 07085)	Discharging to	Oil and Grease		None visible	Instantaneous	Daily	Observations
	Suspended solids		100 mg/l	Spot sample	Monthly	Measured after drying at 105 degrees Celsius	

Table S3.3 Groundw	Table S3.3 Groundwater – emission limits and monitoring requirements							
Monitoring point reference	Parameter	Limit (including unit)	Reference Period	Monitoring frequency	Monitoring standard or method			
GW3, GW4A, GW5R, GW9R detailed on drawing ESID6A	Phenol	0.05 mg/l	Spot Sample	Quarterly	As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), risk assessments for your environmental permit (www.gov.uk) or such other subsequent guidance as may be agreed in writing with the Environment Agency			
	Ammoniacal Nitrogen	3 mg/l recorded on two consecutive routine surveys	Spot Sample	Quarterly	As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u>risk assessments for your environmental permit</u> (<u>www.gov.uk</u>) or such other subsequent guidance as may be agreed in writing with the Environment Agency			

Monitoring point reference	Parameter	Limit (including unit)	Reference Period	Monitoring frequency	Monitoring standard or method
	Chloride	250 mg/l	Spot Sample	Quarterly	As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water (February 2003), <u>risk assessments for your environmental permit (www.gov.uk)</u> or such other subsequent guidance as may be agreed in writing with the Environment Agency
	Nickel	0.08 mg/l	Spot Sample	Quarterly	As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water (February 2003), risk assessments for your environmental permit (www.gov.uk) or such other subsequent guidance as may be agreed in writing with the Environment Agency
	Mecoprop (MCPP)	0.04 µg/l	Spot Sample	Quarterly	As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water (February 2003), risk assessments for your environmental permit (www.gov.uk) or such other subsequent guidance as may be agreed in writing with the Environment Agency
	Dichloroprop	0.05 µg/l	Spot Sample	Quarterly	As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water (February 2003), risk assessments for your environmental permit (www.gov.uk) or such other subsequent guidance as may be agreed in writing with the Environment Agency

Monitoring point Ref. /description	Parameter	Limit (including units) %v/v	Monitoring frequency	Monitoring standard or method
BH A	Carbon dioxide	4.1	Weekly	As specified in Environment Agency Guidance LFTGN03
ВН В	Carbon dioxide	2.8	Weekly	(September 2004), or such other subsequent guidance as may be agreed in writing with the Environment Agency.
внс	Carbon dioxide	2.0	Weekly	Record whether the ground is:
BH D	Carbon dioxide	1.8	Weekly	waterlogged
BH G	Carbon dioxide	5.1	Weekly	frozen
ВН Н	Carbon dioxide	2.4	Weekly	snow covered
BH I	Carbon dioxide	4.6	Weekly	
BH J	Carbon dioxide	4.3	Weekly	
вн к	Carbon dioxide	4.5	Weekly	
BH 1	Carbon dioxide	1.6	Weekly	
BH 2	Carbon dioxide	2.0	Weekly	
BH 3	Carbon dioxide	2.6	Weekly	
BH 4	Carbon dioxide	2.5	Weekly	
BH 5	Carbon dioxide	2.4	Weekly	
BH 6	Carbon dioxide	1.7	Weekly	
BH 7	Carbon dioxide	2.5	Weekly	
BH 8	Carbon dioxide	2.0	Weekly	
BH 9	Carbon dioxide	1.9	Weekly	
BH 10	Carbon dioxide	1.6	Weekly	
BH 11	Carbon dioxide	1.6	Weekly	
BH 12R	Carbon dioxide	3.3	Weekly	
BH 13	Carbon dioxide	6.0	Weekly	
BH A, BH B,	Methane	1	Weekly	
	Oxygen	No limit	Weekly	

Monitoring point Ref. /description	Parameter	Limit (including units) %v/v	Monitoring frequency	Monitoring standard or method
BH C,BH D, BH G, BH H, BH I, BH J,	Atmospheric pressure	No limit	Weekly	As specified in Environment Agency Guidance LFTGN03 (September 2004), or such other subsequent guidance as may be
BH K, BH 01, BH 02, BH 03, BH 04, BH 05, BH 06, BH 07, BH 08, BH 09, BH 10, BH 11, BH 12R, BH 13, BH 14, BH 15, BH 16, BH 17, BH 18, BH 19, BH 20, BH 21 as detailed on drawing 330 CPP.	Differential pressure	No limit	Weekly	Record whether the ground is: waterlogged frozen snow covered

Monitoring point Ref. /description	Parameter	Monitoring frequency	Monitoring Standard or method
Permanently capped zone	Methane concentration	Every 12 months	As per LFTGN 07 (v2 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency.
Temporarily capped zone	Methane concentration	Every 12 months	As per LFTGN 07 (v2 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency.
Whole site	Total Methane emission	As agreed with the Environment Agency	As per LFTGN 07 (v2 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency.
Uncapped areas	Methane concentration	Every 12 months	As agreed with the Environment Agency based on the wording of revised LFTGN 07 or landfill sector guidance or such other subsequent guidance as may be agreed in writing with the Environment Agency.

Monitoring Point Ref. /Description	Parameter	Monitoring frequency	Monitoring standard or method
Up gradient MEPP	Water level, Ammoniacal Nitrogen, Chloride, Electrical Conductivity, pH	Quarterly	As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), risk assessments for your environmental permit
	Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Nickel, Potassium, Sodium, Total Alkalinity, Total Sulphates, Zinc	Annually	(<u>www.gov.uk</u>) or such other subsequent guidance as may be agreed in writing with the Environment Agency
	Hazardous substances	Annually for first six years of operation	
Down or cross gradient MEPP	Water level, Ammoniacal Nitrogen, Chloride, Electrical Conductivity, pH	Quarterly	As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), risk assessments for your environmental permit
	Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Nickel, Potassium, Sodium, Total Alkalinity, Total Sulphates, Zinc	Annually	(www.gov.uk) or such other subsequent guidance as may be agreed in writing with the Environment Agency
	Hazardous substances	Annually for first six years of operation then every two years	After the initial 6 year monitoring period for hazardous substances, if the results of quarterly or annual monitoring suggest an increase in contamination, the operator shall also undertake a full leachate hazardous substances screen.
MEPP	Base of monitoring point (mAoD)	Annually	

Monitoring Point Ref. /Description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
In waste gas monitoring boreholes or sealed leachate wells or sacrificial gas extraction system	Methane Carbon Dioxide Oxygen Carbon Monoxide Differential pressure Atmospheric pressure	Monthly until gas extraction commences	Calibrated handheld monitoring instrument	For cells or phases which have no active gas extraction. Gas extraction system shall be installed and extraction commenced once monitoring shows onset of methane production in waste at a rate that can be sustainably extracted. Once gas extraction has commenced in a particular cell or phase, there is no longer a requirement to carry out this monitoring.
	Hydrogen Sulphide	Quarterly	Calibrated handheld monitoring instrument or Tedlar Bag sample in accordance with LFTGN04 (v3, 2010) or other such subsequent guidance as may be agreed in writing with the Environment Agency or a method agreed with the Environment Agency.	For cells or phases which have no active gas extraction. Once gas extraction has commenced in a particular cell or phase, there is no longer a requirement to carry out this monitoring. Concentrations of hydrogen sulphide shall be assessed in accordance with the gas and odour management plans

Monitoring Point Ref. /Description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Gas collection system at well control valve, manifolds (if applicable) and strategic points on gas system	Methane Carbon Dioxide Oxygen Carbon Monoxide Atmospheric pressure Gas flow rate or suction % Balance Gas (calculated as the difference between the sum of measured gases and 100%)	Monthly or at such other frequency as may be agreed in writing with the Environment Agency.	Calibrated handheld monitoring instrument	Where the oxygen concentration exceeds 5% or the % balance gas is greater than 20% an assessment of air ingress into the system shall be undertaken. Where the concentration of carbon monoxide exceeds 100ppm then further investigation shall be undertaken. Record the ambient air temperature and whether the ground is: waterlogged frozen snow covered
Gas collection system at well control valve	Hydrogen Sulphide	Six monthly	Calibrated handheld monitoring instrument or Tedlar Bag sample in accordance with LFTGN04 (v3, 2010) or other such subsequent guidance as may be agreed in writing with the Environment Agency or a method agreed with the Environment Agency.	Concentrations of hydrogen sulphide shall be assessed in accordance with the gas and odour management plans
Output to flare or LFG Utilisation Compound	Trace gas	Annually	Trace gas analysis in accordance with LFTGN04 (v2, 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency [or a trace gas characterisation method agreed with the Environment Agency].	The concentration of trace gas components shall be assessed against the assumptions made in the Landfill gas risk assessment and dispersion modelling.

Table S3.7 Landfill gas	Table S3.7 Landfill gas – other monitoring requirements						
Monitoring Point Ref.	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications			
/Description							
Output to flare or LFG Utilisation Compound	Methane Carbon Dioxide Oxygen Gas flow rate Suction % Balance Gas (calculated as the difference between the sum of measured gases and 100%)	Weekly		Where the oxygen concentration exceeds 5% or the % balance gas is greater than 20% an assessment of air ingress into the system shall be undertaken.			

Table S3.8 Leachate – other monitoring requirements						
Monitoring point reference or description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications		
Non Operational Ce	lls or Phases					
(Any cell or phases	that have a final engineered cap agreed in acc	ordance with co	ondition 2.6			
MEPP	Ammoniacal Nitrogen, Arsenic, BOD, Cadmium, Calcium, Chloride, Chromium, COD, Copper, Electrical Conductivity, Iron, Lead, Magnesium, Manganese, Nickel, pH, Potassium, Sodium, Total Alkalinity, Total Sulphates, Zinc	Annually	At leachate compliance points as listed in table S3.1. As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and	None		
MEPP	Hazardous substances	Once every four years	Surface Water' (February 2003), risk assessments for your environmental			
MEPP	Depth to base (mAOD)	Annually	permit (www.gov.uk), or such other subsequent guidance as may be agreed in writing with the Environment Agency			

Table S3.9 Surface water – other monitoring requirements					
Monitoring Point Ref. /Description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications	
MEPP	Ammoniacal Nitrogen Chloride Electrical conductivity pH Suspended solids Visual Oil and Grease	Monthly	Spot sample	As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), risk assessments for your environmental permit (www.gov.uk) or such other subsequent guidance as may be agreed in writing with the Environment Agency.	

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	Reporting period	Period ends				
Leachate level As specified by schedule 3, table S3.1	Every 3 months	31 March, 30 June, 30 September, 31 December				
Point source emission to water (other than sewer)	Every 3 months	31 March, 30 June, 30 September, 31 December				
As specified by schedule 3, table S3.2						
Emission to groundwater As specified by schedule 3, table S3.3	Every 3 months	31 March, 30 June, 30 September, 31 December				
Landfill gas in external monitoring boreholes As specified by schedule 3, table S3.4	Every 3 months	31 March, 30 June, 30 September, 31 December				
Emission of landfill gas from capped surfaces As specified by schedule 3, table S3.5	Every 12 months	31 December				
Other groundwater monitoring As specified by schedule 3, table S3.6	Every 3 months	31 March, 30 June, 30 September, 31 December				
Other Landfill gas monitoring As specified by schedule 3, table S3.7	Every 3 months	31 March, 30 June, 30 September, 31 December				
Trace gas monitoring	Every 12 months	31 December				
Other leachate monitoring As specified by schedule 3, table S3.8	Every 12 months	31 December				
Other surface water monitoring As specified by schedule 3, table S3.9	Every 12 months	31 December				
Meteorological data Landfill Directive, annex III, section 2	Every 12 months	31 December				

^{* -} where the reporting period is 12 months, you may submit this information as part of the 'annual report' required by condition 4.2.2.

Table S4.2: Annual production/treatment					
Leachate:	Cubic metres/year				
Disposed of off site;					
Recirculated into the waste mass (to be agreed in writing with the Environment Agency before commencement);					

Table S4.2: Annual production/treatment	
Landfill gas:	Normalised cubic metres/year
combustion in flares;	
Average methane content entering the landfill gas utilisation or treatment compound (based on the annual average of Table S3.7 monitoring)	% methane v/v
Methane generation rate (50%ile from a representative model)	m ³ /hr

Table S4.3 Performance Parameters					
Parameter	Frequency of assessment	Annual total	Unit		
Energy used (including for leachate treatment)	Annually		MWh of electricity or natural gas		

Table S4.4 Reporting Forms					
Media/parameter	Reporting Format	Date of Form			
Leachate	Form leachate 1 or other reporting format to be agreed in writing with the Environment Agency	26/08/2020			
Controlled water	Form Water 1 or other reporting format to be agreed in writing with the Environment Agency	26/08/2020			
Groundwater	Form Groundwater 1 or other reporting format to be agreed in writing with the Environment Agency	26/08/2020			
Landfill gas	Form LFG 1 or other reporting format to be agreed in writing with the Environment Agency	26/08/2020			
Waste Return	E-waste Return Form	-			
Landfill topographical surveys and interpretation	Reporting format to be agreed in writing with the Environment Agency	26/08/2020			

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 a significantly affect the environment	any incident or accident which significantly affects or may
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	

(b) Notification requirements for the	e breach of a li	imit		
To be notified within 24 hours of de	etection unless	otherwise spe	cified belo	ow .
Measures taken, or intended to be taken, to stop the emission				
Time periods for notification follow	ing detection o	of a breach of a	limit	
Parameter				Notification period
(c) Notification requirements in the immediate danger to human health on the environment				
To be notified within 24 hours of de	etection			
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 a Any more accurate information on the notification under Part A.		s practica	ble	
Measures taken, or intended to be take a recurrence of the incident	ken, to prevent			
Measures taken, or intended to be tak limit or prevent any pollution of the en which has been or may be caused by	vironment			
The dates of any unauthorised emissi facility in the preceding 24 months.	ons from the			
Name*				
Post				
Signature				
Date				

^{*} authorised to sign on behalf of the operator

Schedule 6 - Interpretation

"accident" means an accident that may result in pollution.

"annually" means once every year.

"application" means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

"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.

"background concentration" means such concentration of that substance as is present in:

- · For emissions to surface water, the surface water quality up-gradient of the site; or
- For emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge;
 or
- For emissions of landfill gas, the ground or air outside the site and not attributable to the site.

"cell layout drawing" means:

- (a) A drawing or drawings of the proposed new cell that illustrate(s) in sufficient detail:
 - (i) the location of the new cell on the site;
 - (ii) the proposed level (Above Ordnance Datum) of the base of the excavation;
 - (iii) the proposed finished levels of all containment and leachate drainage layers;
 - (iv) the positions of leachate management infrastructure; and
 - (v) the positions of landfill gas infrastructure (if appropriate).
- (b) A detailed written explanation of any minor design changes from the most recently approved cell that result from the new cell layout. This would include, for example:
 - (i) changes to slope length and gradient within the cell;
 - (ii) new leachate or landfill gas infrastructure construction design;
 - (iii) slope stability issues such as new basal excavation level; and/or
 - (iv) depth of waste.

"construction Proposals" means written information, at a level of detail appropriate to the complexity and pollution risk, on the design, specifications of materials selected, stability assessment (where relevant) and the construction quality assurance (CQA) programme in relation to the New Cell or 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-compliances 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.

"EP Regulations" means The Environmental Permitting (England and Wales) Regulations 2016, SI 2016 No.1154 and words and expressions used in this permit which are also used in those Regulations have the same meanings as in those Regulations.

"emissions of substances not controlled by emission limits" means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission limit.

"exceeded" means that a value is above a permitted limit, or where a range of values or a minimum value is set as a permitted limit it means a value outside that range or below the minimum value, whichever is applicable.

"groundwater" means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

"hazardous substances" as defined by the Environmental Permitting (England and Wales) Regulations 2016, SI 2016 No.1154, schedule 22 and listed in our Hydrogeological risk assessment guidance.

"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 human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater

"landfill Infrastructure" means any specified element of the:

- · permanent capping;
- temporary capping (i.e. engineered temporary caps not cover materials);
- · leachate abstraction systems;
- leachate transfer, treatment and storage systems;
- · surface water drainage systems;
- · leachate monitoring wells;
- · groundwater monitoring boreholes;
- · landfill gas monitoring boreholes;
- landfill gas management systems;
- lining within the installation.

within the site.

"LFTGN 05" means Environment Agency Guidance for monitoring enclosed landfill gas flares.

"LFTGN 07" means Environment Agency Guidance on monitoring landfill gas surface emissions.

"LFTGN 08" means Environment Agency Guidance for monitoring landfill gas engines.

"liquids" means any liquid other than leachate within the engineered landfill containment system.

"List of Wastes" means the list of wastes established by Commission Decision 2000/532/EC replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on

waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste, as amended from time to time.

"M2" means Environment Agency Guidance Monitoring of stack emissions to air.

"medicinal product" means any medicine licensed by the Medicines and Healthcare products Regulatory Agency (MHRA) or their predecessors under the Medicines Act 1968, section 130.

"MEPP" Monitoring and extraction point plan, required by condition 4.2.2(h) to specify extraction points and routine monitoring locations.

"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;
- permanent geophysical leak location system;
- · leak detection layer;
- sub-grade;
- · barriers;
- · liners;
- · leachate collection system;
- leachate abstraction system;
- · separation bund/layer;
- 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 affect the agreed design criteria, specification or performance in a way that has a negative effect.

"pests" means Birds, Vermin and Insects.

"previous year" means the 12 month period preceding the month the annual report is submitted in.

"quarter" means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

"relevant waste acceptance procedures" means the procedure for the acceptance of waste at landfills and the associated sampling and test methods specified in the Council Decision Annex (2003/33/EC, European Council of 19 December 2002).

"relevant waste acceptance criteria" means the waste acceptance criteria and the associated sampling and test methods specified in the Council Decision Annex (2003/33/EC, European Council of 19 December 2002).

"review of the Hydrogeological Risk Assessment" means a written review of the hydrogeological risk assessment included in the Application, together with any other parts of the Application that addressed the requirements of the EP Regulations. The review shall assess whether the activities of disposal or tipping for the purpose of disposal of waste authorised by the permit continue to meet the requirements of the EP Regulations.

'sustainably extracted' means where suction can be applied to the extraction wells such that a flow rate of landfill gas, with a methane content capable of either being combusted, or treated by bio-oxidation, can be extracted without increasing the risk of air ingress to the waste or inducing aerobic degradation within the waste.

'waste code' - See 'List of Wastes'.

"WFD" means Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste [and repealing certain Directives] – the Waste Framework Directive.

Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means the standards included in Environment Agency Guidance for Monitoring Enclosed Landfill Gas Flares LFTGN 05 or Guidance for Monitoring Landfill Gas Engine Emissions LFTGN 08.

Where the following terms appear in the waste code list in Table S2.1 they have the meaning given below:

'hazardous substance' means a substance classified as hazardous as a consequence of fulfilling the criteria laid down in parts 2 to 5 of Annex I to Regulation (EC) No 1272/2008;

'heavy metal' means any compound of antimony, arsenic, cadmium, chromium (VI), copper, lead, mercury, nickel, selenium, tellurium, thallium and tin, as well as these materials in metallic form, as far as these are classified as hazardous substances;

'polychlorinated biphenyls and polychlorinated terphenyls' ('PCBs') means PCBs as defined in Article 2(a) of Council Directive 96/59/EC'.

Article 2(a) says that 'PCBs' means:

- polychlorinated biphenyls
- polychlorinated terphenyls
- monomethyl-tetrachlorodiphenyl methane, Monomethyl-dichloro-diphenyl methane, Monomethyldibromo-diphenyl methane
- any mixture containing any of the above mentioned substances in a total of more than 0,005 % by weight;

'transition metals' means any of the following metals: any compound of scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum and tantalum, as well as these materials in metallic form, as far as these are classified as hazardous substances:

'stabilisation' means processes which change the hazardousness of the constituents in the waste and transform hazardous waste into non-hazardous waste;

'solidification' means processes which only change the physical state of the waste by using additives without changing the chemical properties of the waste;

'partly stabilised wastes' means wastes containing, after the stabilisation process, hazardous constituents which have not been changed completely into non-hazardous constituents and could be released into the environment in the short, middle or long term.

Schedule 7 – Site plan



© Crown Copyright. All rights reserved. Environment Agency, 100026380, 2020.

END OF PERMIT