creating a better place

Environment Agency

The Company Director and/or Secretary
FCC Waste Services (UK) Limited
Ground Floor West
900 Pavilion Drive
Northampton Business Park
Northampton
NN4 7RG

Our ref: EPR/BS8605IQ/V010

Date: 3 November 2014

RECEIVED
05 NOV 2014

Dear Sir or Madam

Issue of Environment Agency initiated variation of your permit

Permit reference: EPR/BS8605IQ/V010
Applicant: FCC Waste Services (UK) Limited
Facility: Calvert Landfill, Brackley Lane, Calvert, Buckingham, MK18 2HF

We've decided to vary your permit as discussed with you. We're satisfied that operations can continue in accordance with the variation without harm to the environment or human health. The variation takes effect from 31 October 2014. I enclose a notice showing the changes we've made. Please keep this in a safe place with your other permit records.

This letter contains web links to other documents. If you aren't able to access these phone our Customer Contact Centre for help on 03708 506 506.

If you're not familiar with our document **How to comply with your environmental permit** please read it, as this will help you understand how to meet the conditions of the permit. You can find this on our guidance web page

http://www.environment-agency.gov.uk/business/topics/permitting/32320.aspx

Please look at the table below and note any of the information or actions that apply to your permit.

If...	**then...**
the variation means you're now carrying out a waste operation or activity and need to submit quarterly waste returns on waste movements **Note** This does not apply to permits that only have stand alone water discharge or groundwater activities.	you can get the forms you need from our website http://www.environment-agency.gov.uk/business/topics/waste/32176.aspx If you do not have web access phone our Customer Contact Centre
you need to submit other returns	send these to your area office. Speak to your area officer to check local arrangements.
your variation has added an installation to your permit for the first time	we've enclosed the pollution inventory letter, notice and fact sheet

Permitting and Support Centre, Quadrant 2, 99 Parkway Avenue,
Parkway Business Park, Sheffield, S9 4WF
Customer services line: 03708 506 506
Email: enquiries@environment-agency.gov.uk
www.environment-agency.gov.uk

Rights of appeal

If you're not happy with any permit condition that has been imposed by the variation you may appeal to the Secretary of State. You must make your appeal no later than two months after the date of the notice.

Further information about making an appeal and the forms you will need are available from the Planning Inspectorate website or from the contact details below. .

Environment Appeals, Enforcement and Specialist case work division, The Planning Inspectorate, 3/25 Hawk Wing, Temple Quay House, 2 The Square, Temple Quay, Bristol, BS1 6PN. Phone: 0303 444 5584

You must send written notice of the appeal and the documents listed below to the Secretary of State to the Planning Inspectorate address above. At the same time you must send us a copy of the notice and documents to

Victoria Balmer, Appeals Coordinator, Environment Agency, National Permitting Service, Knutsford Road, Latchford, Warrington, WA4 1HG.
Phone: 01925 542456
Email : victoria.balmer@environment-agency.gov.uk

The documents are:

- a statement of the grounds of appeal
- a copy of any relevant application
- a copy of any relevant environmental permit
- a copy of any relevant correspondence between the appellant and the regulator
- a copy of any decision or notice which is the subject matter of the appeal, and
- a statement indicating whether you wish the appeal to be in the form of a hearing or dealt with by way of written representations.

You may withdraw an appeal by notifying the Secretary of State in writing and sending a copy of that notification to us.

If you have any questions about this permit please phone our Customer Contact Centre on 03708 506 506. They will put you in touch with a local regulatory officer.

Yours sincerely

Zoe Bingley
Permitting Support Advisor

Environment Agency

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

FCC Waste Services (UK) Limited

Calvert Landfill
Brackley Lane
Calvert
Buckingham
MK18 2HF

Variation application number

EPR/BS8605IQ/V010

Permit number

EPR/BS8605IQ

Calvert Landfill
Permit number EPR/BS8605IQ

Introductory note

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

The following gives notice of the variation and consolidation of your 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.

This Environment Agency has a duty, under the Environmental Permitting (England and Wales) Regulations 2010, 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 your permit to reflect current legislation and best practice. These changes principally relate to:

- The addition of a standard condition for landfill gas management at all landfills;
- 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
Application BS8605IQ (EPR/BS8605IQ/A001)	Duly made 3/10/03	Application for disposal of waste in a landfill receiving more than 10 tonnes of waste in any day or with a total capacity of more than 25,000 tonnes, excluding disposals in landfill taking only inert waste and burning of fuels in an appliance with a rated thermal input of 3 MW or more but less than 50 MW.
Permit determined BS8605IQ (EPR/BS8605IQ)	19/04/05	Original permit issued to WRG Waste Services Limited.

Permit varied CP3536SS (EPR/BS8605IQ/V002)	12/07/05	Variation to correct typographical errors, renumber conditions and to include requirement for continuous flow monitoring system on flows above 50m3/day for discharges to surface water.
Permit varied VP3637LA (EPR/BS8605IQ/V003)	17/03/08	Variation to delete all the existing conditions attached to the permit (BS8605IQ) and to replace these with a new set of conditions in line with the latest PPC Landfill template for non-hazardous waste.
Variation Application EPR/BS8605IQ/V004	Duly Made 23/03/09	-
Request for information	26/6/09	04/08/2009 – response date
Request for information	24/7/09	18/09/2009, 09/10/2009 – response date
Request for information	3/8/09	18/09/2009 – response date
Request for information	24/8/09	18/09/2009 – response date
Request for information	12/10/09	14/10/2009 – response date
Variation EPR/BS8605IQ/V004 determined	11/12/09	Variation to permit for the use of a Reverse Osmosis (RO) Leachate Treatment Plant (LTP), and to amend the pre and post settlement restoration contours of the landfill.
Variation Application EPR/BS8605IQ/V005	Duly Made 29/10/09	-
Request for information	02/03/10	20/04/2010 – response date
Request for information	05/06/10	18/06/2010, 5/07/2010 – response date
Variation EPR/BS8605IQ/V005 determined	01/10/10	Variation to permit for the commencement of tipping within Pit 6 and to increase the permitted levels of Pit 6, revisions to the numbers and types of gas engines and flares at the site and amends the surface water discharges to Calvert Brook and Muxwell Brook.
Variation Application EPR/BS8605IQ/V006	Duly made 01/03/11	-
Variation EPR/BS8605IQ/V006 determined	25/03/11	Re-location of two of the existing landfill gas flares and removal of emission limit values and monitoring requirements for the two flares
Variation Application EPR/BS8605IQ/V007	Duly made 12/04/12	Application to add a waste code and a waste operation to the existing installation permit.
Additional information received	21/05/12	Justification of proposed guideline concentration for soil wastes used in restoration.
Response to Schedule 5	04/07/12	Schedule 5 response

Notice dated 20/06/12		
Variation determined EPR/BS8605IQ/V007	27/07/12	Varied permit issued.
Variation Application EPR/BS8605IQ/V008	Duly made 14/08/12	Application to correct errors in Table S4.3 Point source emissions to water.
Variation determined EPR/BS8605IQ/V008	17/09/12	Varied permit issued.
Administrative variation determined EPR/BS8605IQ/V009	18/12/13	-
Environment Agency Landfill Sector Review 2013 Permit reviewed Variation determined EPR/ BS8605IQ/V010 Permit EPR/BS8605IQ (Billing ref HP3339VC)	28/10/14	Varied and consolidated permit issued in modern condition format

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2010

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

permit number
EPR/BS8605IQ

issued to
FCC Waste Services (UK) Limited ("the operator")

whose registered office is

Ground Floor West
900 Pavilion Drive
Northampton Business Park
Northampton
NN4 7RG

company registration number **00988844**

to operate a regulated facility at

Calvert Landfill
Brackley Lane
Calvert
Buckingham
MK18 2HF

to the extent set out in the schedules.

The notice shall take effect from 31/10/2014.

Name	Date
Philip Lamb	**31/10/2014**

Authorised on behalf of the Environment Agency

Schedule 1

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

Condition	Description of change
1.5	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.
2.7.2	Added to separately identify the waste types and quantities that can be accepted for restoration.
2.10	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	Amended description of the landfill activity to clarify that this includes restoration. 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 S1.5	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 • 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 2010

Permit number
EPR/BS8605IQ

This is the consolidated permit referred to in the variation and consolidation notice for Environment Agency initiated variation EPR/BS8605IQ/V010 authorising,

FCC Waste Services (UK) Limited ("the operator"),

whose registered office is

Ground Floor West
900 Pavilion Drive
Northampton Business Park
Northampton
NN4 7RG

company registration number **00988844**

to operate an installation at

Calvert Landfill
Brackley Lane
Calvert
Buckingham
MK18 2HF

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

Name	Date
Philip Lamb	**31/10/2014**

Authorised on behalf of the Environment Agency

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 shall be set out in the Deed of Performance dated 17 October 2007 between the Waste Recycling Group Limited (now known as FCC Environment (UK) Limited) and the Environment Agency as varied by a Deed of Variation dated 15 October 2010 (as varied by further Deeds of Variation from time to time). The operator shall accordingly ensure that the Permit is and remains throughout its subsistence listed under schedule 3 of that Deed as being a permit to which the Deed relates.

1.3 Energy efficiency

1.3.1 For the following activities referenced in Schedule 1, table S1.1 (A1 to A8) 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 Efficient use of raw materials

1.4.1 For the following activities referenced in Schedule 1, table S1.1 (A1 to A8), 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.

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

1.5.1 The operator shall:

(a) 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 green on the site plan at schedule 7 to this permit.

2.3 Operating techniques

2.3.1 (a) The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.

(b) If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan 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 Improvement programme

2.4.1 The operator shall complete the improvements specified in schedule 1, table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.

2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within14 days of completion of each improvement.

2.5 Pre-operational conditions

2.5.1 The operations specified in schedule 1 table S1.4 shall not commence until the measures specified in that table have been completed.

2.6 Landfill Engineering

2.6.1 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.

2.6.2 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.

2.6.3 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.

2.6.4 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.

2.6.5 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.

2.6.6 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.

2.6.7 The operator shall submit a CQA Validation Report as soon as practicable following the construction of the relevant landfill infrastructure.

2.6.8 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.

2.6.9 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.

2.6.10 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.

2.7 Waste acceptance

2.7.1 For the following activities referenced in Schedule 1, table S1.1 (A1 & A2), wastes shall only be accepted for disposal if:

(a) they are listed in Schedule 2, table S2.1 and S2.3

(b) they are non-hazardous waste or stable, non reactive hazardous wastes, 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 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, but excluding waste medicinal products and pharmaceutically active waste materials arising from their manufacture.

2.7.2 Wastes shall only be accepted for restoration where:

(a) they are listed in schedule 2, table S2.2 and

(b) they are accepted in accordance with a restoration plan approved in writing by the Environment Agency.

2.7.3 For the following activities referenced in Schedule 1, table S1.1 (A2), stable non-reactive hazardous waste shall not be deposited in cells used or intended to be used for the disposal of biodegradable non-hazardous waste. Stable non-reactive hazardous waste and non-hazardous waste which is landfilled in the same cell must meet the relevant waste acceptance criteria.

2.7.4 For the following activities referenced in Schedule 1, table S1.1 (A1 & A2), the operator shall visually inspect:

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

(b) waste at the point of deposit;

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

2.7.5 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.

2.7.6 For the following activities referenced in Schedule 1, table S1.1 (A1 & A2), the operator on accepting each delivery of waste shall provide a receipt to the person delivering it.

2.7.7 The total quantity of waste that shall be deposited in the landfill shall be limited by the pre-settlement levels shown on drawing 465P338.

2.7.8 The quantity of waste that is deposited in the landfill in any year shall not exceed the limits in schedule 1 table S1.5.

2.7.9 For the following activities referenced in Schedule 1, table S1.1 (A1 & A2), 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.

2.7.10 The operator shall maintain and implement a system to record the disposal location of any hazardous waste.

2.7.11 For the following activity referenced in schedule 1, table S1.1 (A9 and A10), waste shall only be accepted if:

(a) it is of a type and quantity listed in schedule 2 table S2.4 and

(b) it conforms to the description in the documentation supplied by the producer and holder.

2.7.12 For the following activity referenced in schedule 1, table S1.1 (A9 and A10) waste authorised by this permit shall be clearly distinguished from any other waste on the site.

2.8 Leachate levels

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

2.9 Closure and aftercare

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

2.10 Landfill gas management

2.10.1 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.

2.10.2 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.

2.10.3 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 Compliance with an emission limit in table S3.2 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.

3.1.6 For the following activities referenced in schedule 1, table S1.1 (A4 - +-A9), periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

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.

3.5 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 S3.9;

(b) Point source emissions specified in tables S3.2 and S3.3;

(c) Groundwater specified in tables S3.4 and S3.7;

(d) Landfill gas specified in tables S3.5, S3.6 and S3.8;

(e) Surface water specified in table 3.10; and

(f) Ambient air specified in table S3.11.

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

3.5.3 A topographical survey of the site referenced to ordnance datum shall be carried out:

(a) annually, 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.

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

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 location of hazardous waste deposits; and

vii. 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;

(e) 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 pre-settlement contours and the most recent topographical survey;

(h) a plan(s) ('the monitoring and extraction point plan - MEPP') showing the locations of leachate and landfill gas extraction and all 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 (a) In the event 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) in the event 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) in the event 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 In any other case:

(a) the death of any of the named operators (where the operator consists of more than one named individual);

(b) any change in the operator's name(s) or address(es); and

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

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

(a) the Environment Agency shall be notified at least 14 days before making the change; and

(b) the notification shall contain a description of the proposed change in operation.

4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "without delay", in which case it may be provided by telephone.

Schedule 1 - Operations

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**
A1	D5 –Specially engineered landfill and R10 – Land treatment resulting in benefit to agriculture or ecology	Section 5.2 Part A(1) (a) , The disposal of waste in a landfill.	Landfill for non-hazardous waste and landfill restoration	Receipt, handling, storage and disposal of wastes, consisting of the types and quantities specified in conditions 2.7, as an integral part of landfilling.
A2	D5 –Specially engineered landfill	Section 5.2 Part A(1) (a) , The disposal of waste in a landfill.	Landfill for hazardous waste (separate cell for SNRHW)	Receipt, handling, storage and disposal of wastes, consisting of the types and quantities specified in conditions 2.7, as an integral part of landfilling.
A3	D9 – Physico-chemical treatment of waste	Section 5.4 A (1) (a) (ii), Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving physico-chemical treatment	Treatment and disposal of landfill leachate using Reverse Osmosis (RO).	Treatment of leachate arising from the permitted landfill. Maximum permitted volume for treatment 75,000 m^3/year. From storage to discharge of treated leachate (permeate) to surface water.
Directly Associated Activities				
A4	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 < 50MW	Treatment and utilisation of landfill gas arising from the landfill.
A5	N/A		Storage and handling of leachate pre-removal.	Storage, handling and recirculation of leachate arising from the permitted landfill.
A6	N/A		Flaring of landfill gas for disposal in an appliance.	Landfill gas arising from the landfill.
A7	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.

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		Storage of fuel for operation of plant and equipment.	Fuel storage tank.
Waste Operations				
	Description of activities for waste operation			
A9	**R13:** Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)			Secure storage of wastes listed in Schedule 2, table S2.4 of the permit within the area edged in red. In accordance with condition 4.3.5 the operator may change the location of the waste treatment area edged in red within the area edged in green by submitting a revised site plan to the Environment Agency for approval.

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
A10	**R3:** Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes). **R5:** Recycling/reclamation of other inorganic compounds			Treatment operations shall be limited to: Physical treatment of non-hazardous dewatered road sweeping waste for use as a soil enhancer. The treatment will consist of sorting, screening and blending of road sweepings and soil. Waste types as specified in Schedule 2 Table S2.4 Maximum treatment capacity of 400 tonnes per day. Maximum on site storage capacity of 2000 tonnes. In accordance with condition 4.3.5 the operator may change the location of the waste treatment area edged in red within the area edged in green by submitting a revised site plan to the Environment Agency for approval.

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application	The response to questions 2.1, 2.2, 2.3, 2.4 and 2.5 in part B of the Application Form excluding: The answer to Question 2.3.9 The answer to Question 2.3.32 The answer to Question 2.3.51 The answer to Question 2.3.52 The answer to Question 2.3.53 The answer to Question 2.3.54 The answer to Question 2.3.55 The answer to Question 2.4.9 Attachment B2.3.32 (dated October 2003) Hydrogeological Risk Assessment dated 11 August 2003, Sections 6.3.3 and 6.3.4 only.	03/10/2003
Letter and associated documentation	Letter dated 24th June 2004. Document entitled 'Cell 5 Monocell Design Proposal Calvert Landfill Buckinghamshire' dated June 2004, references to Design Option 2 – 'A' Bund only. Document entitled 'Calvert Landfill – Risks to Groundwater from Proposed Stable, Non Reactive Hazardous Waste Sub Cell' dated 25 June 2004.	28/06/2004
Schedule 4 Response	All documents, excluding: Draft Leachate Management Plan, Attachment B2.3.32 (dated 23 December 2004), Odour Action Plan, Entec Technical Note (answers to NQ5, NQ6, Table 7 of NQ10, NQ12 and NQ13 only) and CAL B2.3.32 Calvert Monitoring Schedule.	24/12/2004 via e-mail
Documents and Drawings	Entec Technical Note entitled 'Calvert Landfill PPC Permit Application – Response to Agency Letter of 24 Jan 2005' including all drawings but excluding Section 3 – the response to Question 7.	08/02/2005 via e-mail
Document	Attachment B2.3.32 excluding the groundwater and surface water compliance limits and the leachate control and compliance levels.	14/02/2005
Letter and Document	Letter dated 23 February 2005 and document entitled "Calvert Landfill Application – Leachate Management Strategy" subsequently updated in accordance with Improvement Condition 4A	23/02/2005

Table S1.2 Operating techniques		
Description	**Parts**	Date Received
Letter and attached documents	Letter dated 24 February entitled 'Calvert Landfill'.	28/02/2005
Documentation as a Result of Improvement Conditions	Waste Recycling Group Limited, Calvert Landfill Gas Power Generation, Dispersion Modelling of Emissions from Engines and Flares and Air Quality Assessment' July 2005.	07/07/2005
	IPPC Permit Noise Assessment for the WRG Calvert Landfill Site, prepared by RPS Planning Transport and Environment dated August 2005.	August 2005
	Particulate Matter Management and Monitoring, Procedure reference EMS1-13 10 V5, and subsequent versions as agreed with the Environment Agency	19/06/2005
	Calvert Landfill Groundwater Management and Monitoring Plan January 2006 and subsequent amendments as agreed with the Environment Agency.	February 2006
	CQA plan for installation of GW monitoring boreholes 8 September 2005. Validation and borehole log report submitted 30 November 2005.	30/11/2005
	Calvert Landfill Site Leachate Contingency Plan dated February 2006.	February 2006
	CAL B2.3.32 Calvert Monitoring Schedule dated 23 February 2007.	23/02/2007
	Ruston Engine – Exhaust Emissions Standard Proposal dated April 2006.	April 2006
	Improvement condition 1: Letter containing the results of the review of fluctuations in landfill gas flow.	15/07/2009
	Improvement condition 2: E-mail regarding the installation of appropriate measures for the continuous monitoring of the composition and flow rate of landfill gas at the input to the gas engines and flares.	13/06/2008
	Improvement condition 6: Letter containing carbon dioxide and methane background and trigger levels for external monitoring boreholes where the triggers were specified TBC.	14/07/2008
	The response to questions 1, 2, 3, 4, 5, 6 in Part B of the Application Form for the Leachate Treatment Plant. The response to questions 1, 2, 3, 4, 5, 6 in Part B of the Application Form for the for the Pit 4 and Pit 5 overtip.	23/03/2009
	Calvert Landfill Site Odour Management Plan, Procedure reference EMS1-13 10 V5, and subsequent amendments as agreed with the Environment Agency	July 2013
	Revised H1 assessment for the Leachate Treatment Facility.	04/08/2009

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Variation Application EPR/BS8605IQ/ V004.	Recontouring Management Plan dated July 2009	5/10/2009
Request for information dated 26/06/2009	Document 'Response to Schedule 5 Questions, September 2009' excluding Appendix D. Letter dated 09/10/2009 with revised table showing Composite Surcharge Leachate Target levels for Pit 5.	18/09/2009 09/10/2009
Pre-operational condition response	E-mail regarding noise bund.	14/10/2009
Request for information dated 24/07/2009, 03/08/2009 and 24/08/2009	Improvement condition 4a - Leachate Management Plan.	31/03/2008
Request for information dated 12/10/2009	Improvement condition 5 - Stability Risk Assessment.	June 2009
Conditions	Improvement condition V004/2 - Procedure reference EMS-3-13.09-LF regarding dust management.	09/04/2010
	Improvement condition V004/3 - Details on bunding of RO plant.	09/04/2010
	Improvement condition V004/4 - Procedure ref. EMS-3-13-14 regarding Noise and Vibration.	09/04/2010
	All parts. Excluding all references to the 8 cell bund design option (the 'small bund' option). Excluding reference to the Pit 4/5/6 and Pit 6 Extension (i.e. the further extension of Pit 6 towards the Gas Compound to the west) from the SWMP.	29/10/2010
	All parts Excluding all parts concerning the 8 cell bund design option (the 'small bund' option). Excluding reference to the Pit 4/5/6 and Pit 6 Extension (i.e. the further extension of Pit 6 towards the Gas Compound to the west) from the SWMP.	20/04/2010

Table S1.2 Operating techniques		
Description	**Parts**	Date Received
Variation Application EPR/BS8605IQ/V005.	All parts Excluding all parts concerning the 8 cell bund design option (the 'small bund' option). Excluding reference to the Pit 4/5/6 and Pit 6 Extension (i.e. the further extension of Pit 6 towards the Gas Compound to the west) from the SWMP.	**18/06/2010, 05/07/2010**
Request for information dated 02/03/2010	Improvement condition V005/1 - Odour Management Plan. Document reference EMS-3-12.10-LNF, and subsequent updates as approved in writing	**13/10/2011**
Request for information dated 05/06/2010	Sections 2.2.5, 2.2.6, 2.2.7 and 2.2.8 of the application document in response to section 2b – Changes to existing activities, Part C2 of the application form. Sections 2.3.2 of the application document in response to section 3b – Technical ability, Part C2 of the application form. Section 2.3.3 of the application document in response to section 3d– Management systems, Part C2 of the application form Sections 2.4.7, 2.4.8, 2.4.9, 2.4.10, 2.4.12 and 2.4.13 of the application document in response to section 5c – Non-technical summary, Part C2 of the application form Sections 4.1.3 and 4.1.4 of the application document in response to section 1, Table 1 – Types of waste accepted, Part B4 of the application form. Section 4.2.2 of the application document in response to section 3 – Operating techniques, Part B4 of the application form.	15/03/2012
Result of Improvement Condition	Response to questions on guideline concentrations for soil use in restoration.	21/05/12

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Variation application EPR/BS8605IQ/V007	Response to questions: 1. clarification of the use of open space criteria for determining risks to human receptors. 2. justification on the omission of BTEX and dioxins/furans/PCBs from the waste acceptance criteria. 3. proposition of determinants for checking against hydrocarbon type contamination in surface water.	04/07/12
Additional information received	Response to request for TPH & BTEX emission limits.	10/07/12
Response to Schedule 5 Notice dated 20/06/12	Improvement condition V004/1 – Format agreed for Annual review of Leachate Management, entitled CALVERT LANDFILL SITE - LEACHATE MANAGEMENT & MONITORING PLAN. All parts and subsequent annual reviews as agreed in writing.	11/12/2013
Additional information received	Ambient Air monitoring methodology consisting of section 5.4 of Procedure ref. EMS-3-13.21-LNF-CAL, and locations shown in drawing 465M416A. Agreed in e-mail of 29/05/2014 addressed to Paula Alvarez.	29/05/2014

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
1	The Operator shall reduce leachate heads to the following levels: Pit 4 – All Cells: 4 metres above base of each cell Pit 5 – Cells 1, 2A, 2B, 3A, 4A, 4B and 5A: 2 metres below the measured maximum local piezometric head in the Kellaways Sands, or the Stability Target Level specified in the letter dated 09/10/2009 with Composite Surcharge Leachate Target Levels for Pit 5 (whichever is lower) Pit 5 – Cells 5B1, 5B2, 5C, 5D, and 5F: 5 metres above base of each cell, or the Stability Target Level specified in the letter dated 09/10/2009 with Composite Surcharge Leachate Target Levels for Pit 5 (whichever is lower) Pit 5 – Cells 5E, 5G, 5H and 5J: 2 meters above the base of the cell	31/12/2015

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
2	Following 12 months of monitoring for methane and carbon dioxide in external monitoring boreholes GB43, GB44 and GB45 the Operator shall submit to the Agency for approval in writing a review of the monitoring data and derivation of suitable compliance limits.	28/11/2015
3	Following 24 months of monitoring methane and carbon dioxide in external monitoring boreholes GB43, GB44 and GB45, the Operator shall submit to the Agency for approval in writing a review of the monitoring data and the compliance limits proposed in response to ICX.	28/112016

Table S1.4A Pre-operational measures		
Reference	**Requirement**	
1	No surcharging of waste shall be permitted in any part of Pit 4 until the leachate head in that part has been redu levels specified below, and the Environment Agency has confirmed that the leachate level has been reached:	
	Well ID[-1]	Leachate level to achieve pre surchagring (mAOD)
	B101	87.5
	B102	85.2
	B103	86.5
	BGS8	82.3
	B301	81.2
	B705	81.9
	F302	91.7
	F304	91.3
	F306	94.0
	BGS3	84.2
	E302	86.7
	E202	82.5
	C301	90.8
	L109	88.0
	BGS1	87.2

Table S1.4A Pre-operational measures		
Reference	**Requirement**	
	PZP421	81.6
	PZP409	80.4
	PZP427	86.1
	PZP416	78.3
	PZP430	84.1
	PZP402	85.7
	PZP432	86.5
3	Waste deposit in Pit 5 - No surcharging of waste shall be permitted in any part of Pit 4 until the leachate head in that part has been reduced in accordance with the levels specified below, and the Environment Agency has confirmed that the leachate level has been reached	
	Well ID[-1]	Leachate level to achieve pre surchagring (mAOD)
	CVL00302	72.43
	CVPZC101	71.83
	CVPZC2A01	71.57
	CVPZC2A02	68.25
	CVPZC2B01	71.46
	CVPZC2B02	71.90
	CVPZC3A02	72.29
	CVPZC3A03	72.22
	CVPZC4A01	72.49
	CVPZC4A02	71.31
	CVPZC4B01	71.71
	CVPZC4B02	69.53
	CVPZC5A01	72.54
	CVPZC5A02	72.53
	CVPZC5B03	64.08
	CVPZC5B06	64.55
	CVPZC5B04	64.63
	CVPZC5B05	64.60
	CVPZC5C01	63.03

Table S1.4A Pre-operational measures		
Reference	**Requirement**	
	CVPZC5C02	63.61
	CVPZC5D01	61.69
	CVPZC5D02	62.33
	CVPZC5E01	60.39
	CVPZC5E02	61.39
	CVPZC5F02	62.28
	CVPZC5F03	62.32
	CVPZC5G02	60.40
	CVPZC5G03	60.50
	CVRS0010	63.61
	CVRS0012	64.22
	CVRS0014	63.40
	CVPZC5J01	64.67
4	Waste deposit in Pit 5 - No surcharging of waste shall be permitted in Pit 5 until the operator has submitted in writing for approval final construction details for increasing the height of the bund between Pit 5 and Pit 6 to 85 m AOD. The submission shall include an assessment of stability of the waste mass and the bund during construction and details of the required leachate level and groundwater level monitoring along the length of the bund during construction.	
5	Waste deposit in Pit 5 - No surcharging of waste shall be permitted in Pit 5 until the operator has implemented measures to reinforce the height, width and geotechnical properties of the existing clay bund separating Pits 5 and 6. The bund shall be built to a height of 85 m AOD with slopes of 1(v):3(h) and a width at the top of 12 m unless otherwise agreed in writing by the Agency.	
6	Waste deposit in Pit 6 - No deposit of waste shall be permitted in Pit 6 until the Operator has completed the clay bund separating Pits 5 and 6. The bund shall be built to a height of 85m AOD with slopes of 1(v):3(h) and a width at the top of 12m unless otherwise agreed in writing by the Environment Agency.	
7	Waste deposit in Pit 6 - No deposit of waste shall be permitted in Pit 6 until the Operator has reduced the leachate levels within Pit 5 cells adjacent to the clay bund (cells 4B, 5B2, 5F, 5G, 5J) separating Pits 5 and 6 to below the height of the bund (85 mAOD).	
8	Placement of the 4th new landfill gas engine in Gas Compound - Prior to placement of the fourth new landfill gas engine, the Operator shall provide an updated drawing of the gas compound showing the proposed location of the engine.	

Table S1.4A Pre-operational measures	
Reference	**Requirement**
9	Waste deposit in Pit 6 - The Operator shall establish valid background levels for Carbon Dioxide and Methane for gas monitoring boreholes GB37 to GB42 and shall submit proposed appropriate trigger levels for these substances to the Environment Agency for approval. No deposit of waste shall be permitted until the trigger levels have been approved in writing by the Environment Agency.

Table S1.5 Annual waste input limits	
Category	**Limit Tonnes/ Year**
Non-hazardous waste	**2,500,000**
Stable non-reactive hazardous waste	**500,000**
Inert waste	**1,000,000**
Waste for restoration	**500,000**
Waste operation activity	**20,000**
Total	**4,520,000**

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
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 02	animal-tissue waste
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 02	animal-tissue waste
02 02 03	materials unsuitable for consumption or processing
02 02 04	sludges from on-site effluent treatment

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste	
Waste code	**Description**
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
02 04 02	off-specification calcium carbonate
02 04 03	sludges from on-site effluent treatment
02 05	**wastes from the dairy products industry**
02 05 01	materials unsuitable for consumption or processing
02 05 02	sludges from on-site effluent treatment
02 06	**wastes from the baking and confectionery industry**
02 06 01	materials unsuitable for consumption or processing
02 06 02	wastes from preserving agents
02 06 03	sludges from on-site effluent treatment
02 07	**wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)**
02 07 01	wastes from washing, cleaning and mechanical reduction of raw materials
02 07 02	wastes from spirits distillation
02 07 03	wastes from chemical treatment
02 07 04	materials unsuitable for consumption or processing
02 07 05	sludges from on-site effluent treatment
03	**WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURNITURE, PULP, PAPER AND CARDBOARD**
03 01	**wastes from wood processing and the production of panels and furniture**
03 01 01	waste bark and cork
03 01 05	sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
03 03	**wastes from pulp, paper and cardboard production and processing**
03 03 01	waste bark and wood
03 03 02	green liquor sludge (from recovery of cooking liquor)
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

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste	
Waste code	**Description**
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**
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 metallic oxides**
06 03 14	solid salts 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 MFSU 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
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	wastes containing silicones other than those mentioned in 07 02 16

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste	
Waste code	**Description**
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**
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 13	waste ink other than those mentioned in 08 03 12
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 waterproofing 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**
09 01	**wastes from the photographic industry**
09 01 07	photographic film and paper containing silver or silver compounds
09 01 08	photographic film and paper free of silver or silver compounds
09 01 10	single-use cameras without batteries
09 01 12	single-use cameras containing batteries other than those mentioned in 09 01 11
10	**WASTES FROM THERMAL PROCESSES**
10 01	**wastes from power stations and other combustion plants (except 19)**
10 01 01	bottom ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04)
10 01 02	coal fly ash
10 01 03	fly ash from peat and untreated wood
10 01 05	calcium-based reaction wastes from flue-gas desulphurisation in solid form
10 01 07	calcium-based reaction wastes from flue-gas desulphurisation in sludge form
10 01 15	bottom ash, slag and boiler dust from co-incineration other than those mentioned in 10 01 14
10 01 17	fly ash from co-incineration other than those mentioned in 10 01 16

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste	
Waste code	**Description**
10 01 19	wastes from gas cleaning other than those mentioned in 10 01 05, 10 01 07 and 10 01 18
10 01 21	sludges from on-site effluent treatment other than those mentioned in 10 01 20
10 01 23	aqueous sludges from boiler cleansing other than those mentioned in 10 01 22
10 01 24	sands from fluidised beds
10 01 25	wastes from fuel storage and preparation of coal-fired power plants
10 01 26	wastes from cooling-water treatment
10 02	**wastes from the iron and steel industry**
10 02 01	wastes from the processing of slag
10 02 02	unprocessed slag
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
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

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste	
Waste code	**Description**
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
10 09 06	casting cores and moulds which have not undergone pouring other than those mentioned in 10 09 05
10 09 08	casting cores and moulds which have undergone pouring other than those mentioned in 10 09 07
10 09 10	flue-gas dust other than those mentioned in 10 09 09
10 09 12	other particulates other than those mentioned in 10 09 11
10 09 14	waste binders other than those mentioned in 10 09 13
10 09 16	waste crack-indicating agent other than those mentioned in 10 09 15
10 10	**wastes from casting of non-ferrous pieces**
10 10 03	furnace slag
10 10 06	casting cores and moulds which have not undergone pouring, other than those mentioned in 10 10 05
10 10 08	casting cores and moulds which have undergone pouring, other than those mentioned in 10 10 07
10 10 10	flue-gas dust other than those mentioned in 10 10 09
10 10 12	other particulates other than those mentioned in 10 10 11
10 10 14	waste binders other than those mentioned in 10 10 13
10 10 16	waste crack-indicating agent other than those mentioned in 10 10 15
10 11	**wastes from manufacture of glass and glass products**
10 11 03	waste glass-based fibrous materials
10 11 05	particulates and dust
10 11 10	waste preparation mixture before thermal processing, other than those mentioned in 10 11 09
10 11 12	waste glass other than those mentioned in 10 11 11
10 11 14	glass-polishing and -grinding sludge other than those mentioned in 10 11 13
10 11 16	solid wastes from flue-gas treatment other than those mentioned in 10 11 15
10 11 18	sludges and filter cakes from flue-gas treatment other than those mentioned in 10 11 17
10 11 20	solid wastes from on-site effluent treatment other than those mentioned in 10 11 19
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 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)

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste	
Waste code	**Description**
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, phosphatising, 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
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
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

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste	
Waste code	**Description**
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**
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
17 04 04	zinc
17 04 05	iron and steel
17 04 06	tin
17 04 07	mixed metals

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste	
Waste code	**Description**
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, plaster casts, linen, disposable clothing, diapers)
18 01 07	chemicals other than those mentioned in 18 01 06
18 02	**wastes from research, diagnosis, treatment or prevention of disease involving animals**
18 02 03	wastes whose collection and disposal is not subject to special requirements in order to prevent infection
18 02 06	chemicals other than those mentioned in 18 02 05
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
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 02 99	This code may be used for treated clinical waste where the operator proves that the waste stream is from an approved treatment process. Where this is the case the process and type of waste being treated should be specified.
19 03	**stabilised/solidified wastes**
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

[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 Permitted waste types for disposal at a landfill for non-hazardous waste	
Waste code	**Description**
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 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 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
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

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste	
Waste code	**Description**
20 01 08	biodegradable kitchen and canteen waste
20 01 10	clothes
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 36	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35
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 01 99	Other fractions not otherwise specified (comprising only of non-clinical human and animal offensive/hygiene waste (not arising from healthcare and/or related research i.e. not including waste from natal care, diagnosis, treatment or prevention of disease) which is not subject to special requirements in order to prevent infection.
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 accepted for restoration	
Waste code	**Description**
01	**WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS**
01 01	**Wastes from mineral metalliferous excavation**
01 01 02	Wastes from mineral non-metalliferous excavation
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
02	**wastes from the preparation and processing of meat, fish and other foods of animal origin**
02 04	**wastes from sugar processing**
02 04 01	soil from cleaning and washing beet
03	**WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURNITURE, PULP, PAPER AND CARDBOARD**
03 03	**wastes from pulp, paper and cardboard production and processing**
03 03 05	de-inking sludges from paper recycling
03 03 09	lime mud waste

Table S2.2 Permitted waste types accepted for restoration	
Waste code	**Description**
17	**CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)**
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
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 05	**wastes from aerobic treatment of solid wastes**
19 05 03	off-specification compost
19 08	**wastes from waste water treatment plants not otherwise specified**
19 08 05	sludges from treatment of urban waste water
19 09	**wastes from the preparation of water intended for human consumption or water for industrial use**
19 09 02	sludges from water clarification
19 12	**wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**
19 12 09	minerals (for example sand, stones)
19 12 12	Other wastes (including mixtures) 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
20	**MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS**
20 02	**garden and park wastes (including cemetery waste)**
20 02 02	soil and stones

Table S2.3 Permitted waste types for disposal in the stable non-reactive hazardous waste cell	
Waste Code	**Description**
04	**WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES**
04 02	**wastes from the textile industry**
04 02 19*	Sludges from on-site effluent treatment containing dangerous substances
05	**WASTES FROM PETROLEUM REFINING, NATURAL GAS PURIFICATION AND PYROLYTIC TREATMENT OF COAL**
05 01	**wastes from petroleum refining**
05 01 09*	Sludges from on-site effluent treatment containing dangerous substances
06	**WASTES FROM INORGANIC CHEMICAL PROCESSES**
06 05	**sludges from on-site effluent treatment**
06 05 02*	Sludges from on-site effluent treatment containing dangerous substances
07	**WASTES FROM ORGANIC CHEMICAL PROCESSES**
07 01	**wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals**
07 01 11*	Sludges from on-site effluent treatment containing dangerous substances
07 02	**wastes from the MFSU of plastics, synthetic rubber and man made fibres**
07 02 11*	sludges from on-site effluent treatment containing dangerous substances

Table S2.3 Permitted waste types for disposal in the stable non-reactive hazardous waste cell	
Waste Code	**Description**
07 03	**wastes from the MFSU of organic dyes and pigments (except 06 11)**
07 03 11*	sludges from on-site effluent treatment containing dangerous substances
07 04	**wastes from the MFSU of organic plant protection products (except 02 0108 and 02 01 09), wood preservingag ents (except 03 02) and other biocides**
07 04 11*	sludges from on-site effluent treatment containing dangerous substances
07 05	**wastes from the MFSU of pharmaceuticals**
07 05 11*	sludges from on-site effluent treatment containing dangerous substances
07 06	**wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics**
07 06 11*	sludges from on-site effluent treatment containing dangerous substances
07 07	**wastes from the MFSU of fine chemicals and chemical products not otherwise specified**
07 07 11*	sludges from on-site effluent treatment containing dangerous substances
10	**WASTES FROM THERMAL PROCESSES**
10 01	**wastes from power stations and other combustion plants (except 19)**
10 01 04*	Oil fly ash and boiler dust
10 01 13*	Fly ash from emuslified hydrocarbons used as fuel
10 01 16*	Fly ash from co-incineration containing dangerous substances
10 01 20*	Sludges from on-site effluent treatment containing dangerous substances
10 02	**wastes from the iron and steel industry**
10 02 07*	Solid wastes from gas treatment containing dangerous substances
10 02 13*	Sludges and filter cakes from gas treatment containing dangerous substances
10 03	**wastes from aluminium thermal metallurgy**
10 03 04*	Primary production slags
10 03 19*	Flue-gas dust containing dangerous substances
10 03 21*	Other particulates and dust containing dangerous substances
10 03 23*	Solid wastes from gas treatment containing dangerous substances
10 03 25*	Sludges and filter cakes from gas treatment containing dangerous substances
10 04	**wastes from lead thermal metallurgy**
10 04 01*	Slags from primary and secondary production
10 04 04*	Flue-gas dust
10 04 05*	Other particulates and dust
10 04 06*	Solid wastes from gas treatment
10 04 07*	Sludges and filter cakes from gas treatment
10 05	**wastes from zinc thermal metallurgy**
10 05 03*	Flue-gas dust
10 05 05*	Solid waste from gas treatment
10 05 06*	Sludges and filter cakes from gas treatment
10 06	**wastes from copper thermal metallurgy**
10 06 03*	Flue-gas dust
10 06 06*	Solid waste from gas treatment
10 06 07*	Sludges and filter cakes from gas treatment
10 06 09*	water treatment containing oil
10 08	**wastes from other non ferrous thermal metallurgy**
10 08 15*	Flue gas dust containing dangerous substances
10 08 17*	Sludges and filter cakes from flue-gas treatment containing dangerous substances

Table S2.3 Permitted waste types for disposal in the stable non-reactive hazardous waste cell	
Waste Code	**Description**
10 09	**wastes from casting of ferrous pieces**
10 09 05*	Casting cores and moulds which have not undegone pouring containing dangerous substances
10 09 07*	Casting cores and moulds which have undergone pouring containing dangerous substances
10 09 09*	Flue gas dust containing dangerous substances
10 09 11*	Other particulates containing dangerous substances
10 10	**wastes from casting of non ferrous pieces**
10 10 05*	Casting cores and mould which have not undegone pouring containing dangerous substances
10 10 07*	Casting cores and moulds which have undergone pouring, containing dangerous substances
10 10 09*	Flue gas dust containing dangerous substances
10 10 11*	Other particulates containing dangerous particulates
10 11	**wastes from manufacture of glass and glass products**
10 11 09 *	Waste preparation mixture before thermal processing, containing dangerous substances
10 11 11*	Waste glass in small particles and glass powder containing heavy metals
10 11 13*	Glass polishing and grinding sludge containing dangerous substances
10 11 15*	Solid wastes from flue gas treatment containing dangerous substances
10 11 17*	Sludges and filter cakes from flue gas treatment containing dangerous substances
10 11 19*	Solid wastes from on-site effluent treatment containing dangerous substances
10 12	**wastes from manufacture of ceramic goods, bricks, tiles and construction products**
10 12 09*	Solid wastes from gas treatment containing dangerous substances
11	**WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDROMETALLURGY**
11 01	**wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling**
11 01 09*	Sludges and filter cakes containing dangerous substances
16	**WASTES NOT OTHERWISE SPECIFIED IN THE LIST**
16 11	**waste linings and refractories**
16 11 01*	Carbon-based linings and refrctories from metallurgical processes containing dangerous subtsances
16 11 03*	Other linings and refractories from metallurgical processes containing dangerous subtsances
16 11 05*	Linings and refractories from non-metallurgical processes containing dangerous substances
17	**CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)**
17 01	**concrete, bricks, tiles and ceramics**
17 01 06*	Mixtures of, or separate fractions of concrete, bricks, tiles and ceramics containing dangerous substances
17 02	**wood glass and plastic**
17 02 04*	Glass containing or contaminated with dangerous substances
17 04	**metals (including their alloys)**
17 04 09*	Metal waste contaminated with dangerous substances
17 05	**soil (includingexcavated soil from contaminated sites), stones and dredging spoil**

Table S2.3 Permitted waste types for disposal in the stable non-reactive hazardous waste cell	
Waste Code	**Description**
17 05 03*	Soil and stones containing dangerous substances
17 05 05*	Dredging spoil containing dangerous substances
17 05 07*	Track ballast containing dangerous substances
17 06	**insulation materials and asbestos containingconstruction materials**
17 06 03*	Other insulation materials consisting of or containing dangerous substances
17 09	**other construction and demolition wastes**
17 09 03*	Other construction and demolition wastes (including mixed wastes)containing dangerous substances
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 11*	Bottom ash and slag containing dangerous substances
19 01 13*	Fly ash containing dangerous substances
19 01 15*	Boiler dust containing dangerous substances
19 01 17*	Pyrolysis wastes containing dangerous substances
19 02	**wastes from physico/chemical treatments of waste (including dechromatation decyanidation, neutralisation)**
19 02 04*	Premixed wastes composed of at least one hazardous waste
19 02 05*	Sludges from physico/chemical treatment containing dangerous substances
19 03	**stabilised/solidified wastes** (4)
19 03 04*	Stabilised wastes other than those mentioned in 19 03 04
19 03 06*	solidified wastes other than those mentioned in 19 03 06
19 12	**wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**
19 12 11*	Other wastes (including mixtures of materials) from mechanical treatment of waste containing dangerous substances
19 13	**wastes from soil and groundwater remediation**
19 13 01*	Solid wastes from soil remediation containing dangerous substances
19 13 03*	Sludges from soil remediation containing dangerous substances

Table S2.4 Permitted waste types and quantities for waste operation	
Maximum quantity	20,000 tonnes per year
Waste code	**Description**
01	WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, 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 04	**wastes from physical and chemical processing of non-metalliferous minerals**
01 04 09	waste sand and clays
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
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

Table S2.4 Permitted waste types and quantities for waste operation	
Maximum quantity	20,000 tonnes per year
Waste code	**Description**
17 05 06	dredging spoil other than those mentioned in 17 05 05
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 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 02	**garden and park wastes (including cemetery waste)**
20 02 02	soil and stones
20 03	**other municipal wastes**
20 03 03	street-cleaning residues(1)

Schedule 3 – Emissions and monitoring

Table S3.1 Leachate and groundwater level limits and monitoring requirements

Monitoring point reference/ Description[Note 3]	Limit	Monitoring frequency	Monitoring method
All Leachate Compliance Points in Pit 4 [Note 1]	4 metres above base of each cell	Monthly	In accordance with Environment Agency document LFTGN02 (February 2003) Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water' or such other subsequent guidance as may be agreed in writing with the Environment Agency.
All operational leachate wells in Cells 1, 2A, 2B, 3A, 4A, 4B and 5A of Pit 5	2 metres below the measured maximum local piezometric head in the Kellaways Sands, or the Stability Target Level specified in the letter dated 09/10/2009 with Composite Surcharge Leachate Target Levels for Pit 5 (whichever is lower).	Monthly	
All operational leachate wells in Cells 5B1, 5B2, 5C, 5D and 5F of Pit 5	5 metres above base of each cell, or the Stability Target Level specified in the letter dated 09/10/2009 with Composite Surcharge Leachate Target Levels for Pit 5 (whichever is lower).	Monthly	
All operational leachate wells in Cells 5E, 5G, 5H and 5J of Pit 5	2 metres above base of cell	Monthly	
All leachate monitoring points in Pit 6[Note 2]	2 metres below the measured maximum local piezometric head in the Kellaways Sands or 2 metres above base of cell where the piezometric head is less than 4 metres above the base of the cell	Monthly	

Note 1: Limits shall not apply until improvement condition IC1 in table S1.3 has been achieved

Note 2: Monitoring to commence after constriction of the monitoring points

Note 3: Where monitoring wells become unusable or are lost, new wells shall be constructed to replace them. The Operator shall submit proposals for any replacements, along with a timescale for their installation for agreement in writhing by the Environment Agency

Table S3.2 Point source emissions to air – emission limits and monitoring requirements						
Emission point Ref as located in Power Station 2/ Gas Compound 3, (revised flare layout shown on Drawing No.2 titled 'Site Layout Plan' and adted 11/02/11)	**Parameter**	**Source**	**Limit (including unit)**	**Reference Period**	**Monitoring Frequency**	**Monitoring Standar or Method**
A1 to A7: existing engines A13 and A14: additional engines Note 1	NO_x CO Total VOCs	Gas utilisation plant	650 mg/Nm^3 1,500 mg/Nm^3 1,750 mg/Nm^3	Hourly mean	Annually	As per M2 or such other subsequent guidance as may be agreed in writing with the Environment Agency
A15: additional engine Note 1	NO_x CO Total VOCs	Gas utilisation plant	500 mg/Nm^3 1,400 mg/Nm^3 1000 mg/Nm^3	Hourly mean	Annually	As per M2 or such other subsequent guidance as may be agreed in writing with the Environment Agency
A16: additional engine Note 1	NO_x CO Total VOCs	Gas utilisation plant	650 or 500 mg/Nm^3 1,500 or 1,400 mg/Nm^3 1,750 or 1,000 mg/Nm^3	Hourly mean	Annually	As per M2 or such other subsequent guidance as may be agreed in writing with the Environment Agency
A10 and A11: existing flares	NO_x CO VOCs Operational temperature	Landfill Gas Flares	150 mg/Nm^3 100 mg/Nm^3 10 mg/Nm^3 >1000 °C	Hourly Mean	Annually Note 2	As per M2 or such other subsequent guidance as may be agreed in writing with the Environment Agency Monitoring is unnecessary where the flare is active for <10% of the year.

Table S3.2 Point source emissions to air – emission limits and monitoring requirements						
Emission point Ref as located in Power Station 2/ Gas Compound 3, (revised flare layout shown on Drawing No.2 titled 'Site Layout Plan' and adted 11/02/11)	Parameter	Source	Limit (including unit)	Reference Period	Monitoring Frequency	Monitoring Standar or Method
A12: new flare	NO_x	Landfill Gas Flare	150 mg/Nm^3		Annually [Note2]	As per M2 or such other subsequent guidance as may be agreed in writing with the Environment Agency Monitoring is unnecessary where the flare is active for <10% of the year.
	CO		50 mg/Nm^3			
	VOCs		10 mg/Nm^3			
	Operational temperature		>1000 °C			
A8 and A9: existing flares	NO_x	Landfill Gas Flare	150 mg/Nm^3	-	-	Emission limits do no apply on commissioning of the new flare (emission point A12), or when flares are otherwise performing an emergency back-up duty.
	CO		50			
	VOCs		10			
	Operational temperature		>1000 °C			

Note 1: Only 10 of the permitted 11 engines are permitted for regular use. The eleventh engine is only to be used on a stand-by basis when other engines are off-line

Note 2: Annual monitoring is only required when flares operate in excess of 10% of the time, taken on an annual assessment period.

Note 3: Emission limits do not apply on commissioning of the new flare (emission point A12) or when flares are otherwise performing an emergency back-up duty.

Table S3.3 Point source emissions to water (other than sewer) – emission limits and monitoring requirements						
Emission point Ref. & Location	**Parameter**	**Source**	**Limit (incl unit)**	**Reference Period**	**Monitoring Frequency**	**Monitoring Standard or Method**
WP1: (shown on S.2003/CV/PPC6) Claydon Brook, Grid Reference SP69152401[Note 1]	SO_4	Treated leachate and surface water from site	2500mg/l	Spot Sample	Monthly	In accordance with Environment Agency Guidance LFTGN02 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water' or such other subsequent guidance as may be agreed in writing with the Environment Agency.
	Suspended Solids		50mg/l			
	Cadmium		5µg/l			
	Chromium		16µg/l			
	Copper		50µg/l			
	Nickel		40µg/l			
	Lead		60µg/l			
	Zinc		120µg/l			
	Phenol		0.5mg/l			
	Chloride		314mg/l			
	BOD		20mg/l			
	Ammoniacal Nitrogen		5mg/l			
	Maximum volume		$450m^3$/day			
	Maximum flow rate		$50m^3$/hour			
	Benzene		10µg/l[Note 3] & 50µg/l[Note 4]			
	Toluene		50µg/l[Note 3] & 380µg/l[Note 4]			
	Ethylbenzene		20µg/l[Note 3] & 200µg/l[Note 4]			
	Xylene		30µg/l[Note 3]			
	TPH (C8-C40)		100µg/l[Note 4]			
WP8: (shown on S.2003/CV/PPC11b) Muxwell brook	SO_4	Surface Water Collection System	1150mg/l	Spot sample	Monthly	In accordance with Environment Agency Guidance LFTGN02
	Suspended Solids		60mg/l			

Table S3.3 Point source emissions to water (other than sewer) – emission limits and monitoring requirements						
Emission point Ref. & Location	**Parameter**	**Source**	**Limit (incl unit)**	**Reference Period**	**Monitoring Frequency**	**Monitoring Standard or Method**
(tributary of River Ray Grid Reference SP69282286[Note 2]	BOD		10mg/l			'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water' or such other subsequent guidance as may be agreed in writing with the Environment Agency.
	Ammoniacal Nitrogen		1mg/l			
	Chloride		200mg/l			
	Cadmium		5µg/l			
	Total Copper		10µg/l			
	Total Zinc		250µg/l			
	Total Chromium		5µg/l			
	Total Nickel		150µg/l			
	Total Lead		5µg/l			
	Phenol		2µg/l			
	Oil/Grease		20mg/l			
	Maximum volume		860m^3/day			
WP10: Discharge to Muxwell Brook shown on Plan 2 of the Surface Water Management Plan at Grid Reference SP69962228	Maximum volume	Surface Water Collection System uncontaminated surface water	25,500m^3/day	Spot sample	Monthly	In accordance with Environment Agency Guidance LFTGN02 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water' or such other subsequent guidance as may be agreed in writing with the Environment Agency.
	Maximum flow rate		2,865m^3/hour			

Note 1: Flows of the Discharge shall be measured at NGR SP 69150 24010, or such other point(s) as agreed by the Environment Agency.

Note 2: Flows of the Discharge shall be measured at NGR SP 69280 22860, or such other point(s) as agreed by the Environment Agency.

Note 3: Annual average

Note 4: Maximum allowable concentration

Table S3.4 Groundwater – emission limits and monitoring requirements					
Monitoring point reference	**Parameter**	**Limit (including unit)** [Note 1]	**Reference Period**	**Monitoring frequency**	**Monitoring standard or method**
Kellaways Sand: WB1, WB3A, WB12, WB13, WB16, WB18, WB21, WB24, WB25, WB27, WB28, WB29, WB30. Bilsworth Limestone: WB8b, WB9, WB10, WB17, WB19, WB20, WB22, WB23, WB26, WB31. Any additional monitoring points [Note 1]	Ammoniacal Nitrogen	4mg/l	Spot Sample	Quarterly	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), Horizontal Guidance Note H1 – Environmental Risk Assessment for permits, Annex J3, version 2.1, Dec 2011) or such other subsequent guidance as may be agreed in writing with the Environment Agency. Any amendments to the prescribed monitoring arrangements or monitoring plan shall be agreed in writing by the Environment Agency prior to implementation.
	Potassium:				
	in Kellaways Sand	70mg/l			
	in Blisworth Limestone	100mg/l			
	Total Organic Carbon	60mg/l			
	Mecoprop	0.1µg/l			
	Toluene	4µg/l			
	Phthalates	8µg/l			
Note 1: Any amendments to the prescribed monitoring arrangements or monitoring plan shall be agreed in writing by the Agency prior to implementation					

Table S3.5 Landfill gas in external monitoring boreholes – limits and monitoring requirements				
Monitoring point Ref. /description as shown on Drawing 465M086B entitled 'Environmental Monitoring Plan' dated October 2007	**Parameter**	**Limit (including units)[Note 1]**	**Monitoring frequency**	**Monitoring standard or method**
GB1	Methane	1.0%v/v	Monthly	As per LFTGN03 (Sept 04) or such other subsequent guidance as may be agreed in writing with the Environment Agency. Record whether the ground is: • waterlogged • frozen • snow covered
	Carbon Dioxide	3.0%v/v		
GB2	Methane	1.0%v/v		
	Carbon Dioxide	6.1%v/v		
GB3	Methane	1.0%v/v		
	Carbon Dioxide	7.8%v/v		
GB4	Methane	1.0%v/v		
	Carbon Dioxide	2.6%v/v		
GB5	Methane	1.0%v/v		
	Carbon Dioxide	6.5%v/v		
GB6	Methane	1.0%v/v		
	Carbon Dioxide	2.2%v/v		
GB7	Methane	1.0%v/v		
	Carbon Dioxide	8.0%v/v		
GB8	Methane	1.0%v/v		
	Carbon Dioxide	7.1%v/v		
GB11	Methane	1.0%v/v		
	Carbon Dioxide	3.4%v/v		
GB14	Methane	1.0%v/v		
	Carbon Dioxide	6.2%v/v		
GB15	Methane	1.0%v/v		
	Carbon Dioxide	2.1%v/v		
GB19	Methane	1.0%v/v		
	Carbon Dioxide	4.3%v/v		
GB20	Methane	1.0%v/v		
	Carbon Dioxide	12.2%v/v		

Table S3.5 Landfill gas in external monitoring boreholes – limits and monitoring requirements				
Monitoring point Ref. /description as shown on Drawing 465M086B entitled 'Environmental Monitoring Plan' dated October 2007	**Parameter**	**Limit (including units)[Note 1]**	**Monitoring frequency**	**Monitoring standard or method**
GB28	Methane	1.0%v/v		
	Carbon Dioxide	4.2%v/v		
GB29	Methane	1.0%v/v		
	Carbon Dioxide	3.9%v/v		
GB30	Methane	1.8%v/v		
	Carbon Dioxide	18.5%v/v		
GB31	Methane	1.8%v/v		
	Carbon Dioxide	TBC		
GB32	Methane	1.8%v/v		
	Carbon Dioxide	6.0%v/v		
GB33	Methane	1.8%v/v		
	Carbon Dioxide	11.5%v/v		
GB34	Methane	3.1%v/v		
	Carbon Dioxide	TBC		
GB35	Methane	3.2%v/v		
	Carbon Dioxide	TBC		
GB36	Methane	3.3%v/v		
	Carbon Dioxide	10.3%v/v		
GB37, GB38, GB39, GB40, GB41, GB42, GB43, GB44, GB45, GB46	Methane	TBC[Note3]		
	Carbon Dioxide	TBC [Note3]		
WB1	Methane	2.5%v/v		
	Carbon Dioxide	2.5%v/v		
WB3A	Methane	2.8%v/v		
	Carbon Dioxide	2.5%v/v		

Table S3.5 Landfill gas in external monitoring boreholes – limits and monitoring requirements				
Monitoring point Ref. /description as shown on Drawing 465M086B entitled 'Environmental Monitoring Plan' dated October 2007	**Parameter**	**Limit (including units)[Note 1]**	**Monitoring frequency**	**Monitoring standard or method**
WB8B	Methane	3.0%v/v		
	Carbon Dioxide	2.5%v/v		
WB12	Methane	2.7%v/v		
	Carbon Dioxide	2.5%v/v		
WB13	Methane	4.6%v/v		
	Carbon Dioxide	2.5%v/v		
WB16	Methane	2.7%v/v		
	Carbon Dioxide	2.5%v/v		
WB17	Methane	2.6%v/v		
	Carbon Dioxide	2.5%v/v		
WB18	Methane	2.5%v/v		
	Carbon Dioxide	2.5%v/v		
WB19	Methane	3.0%v/v		
	Carbon Dioxide	2.5%v/v		
WB20	Methane	3.1%v/v		
	Carbon Dioxide	2.5%v/v		
WB23	Methane	2.6%v/v		
	Carbon Dioxide	2.5%v/v		
WB24	Methane	3.0%v/v		
	Carbon Dioxide	2.5%v/v		
WB25	Methane	2.6%v/v		
	Carbon Dioxide	2.5%v/v		
WB26	Methane	2.7%v/v		
	Carbon Dioxide	2.5%v/v		
WB27	Methane	2.5%v/v		
	Carbon Dioxide	2.5%v/v		

Table S3.5 Landfill gas in external monitoring boreholes – limits and monitoring requirements				
Monitoring point Ref. /description as shown on Drawing 465M086B entitled 'Environmental Monitoring Plan' dated October 2007	**Parameter**	**Limit (including units)[Note 1]**	**Monitoring frequency**	**Monitoring standard or method**
GB1-8, GB11, GB14 - 15, GB19-20, GB28 - 42, WB1, WB3A, WB8B, WB12, WB13, WB16 – WB27	Oxygen	no limit		
GP1	Atmospheric pressure	no limit		
	Differential Pressure	no limit		
	Methane	5.0%v/v		
	Carbon Dioxide	3.2%v/v		
GP2, GP3, GP4, GP5, GP6, GP7, GP8, GP9, GP10	Methane	5.0%v/v		
	Carbon Dioxide	2.5%v/v		
GP11	Methane	3.5%v/v		
	Carbon Dioxide	2.5%v/v		
GP12, GP13, GP14, GP15, GP16, GP17, GP19, GP20, GP21, GP22,	Methane	2.8%v/v		
	Carbon Dioxide	2.5%v/v		
GP18	Methane	2.9%v/v		
	Carbon Dioxide	2.5%v/v		
GP23	Methane	5.0%v/v		
	Carbon Dioxide	3.8%v/v		
GP24	Methane	5.0%v/v		
	Carbon Dioxide	2.5%v/v		

Table S3.5 Landfill gas in external monitoring boreholes – limits and monitoring requirements				
Monitoring point Ref. /description as shown on Drawing 465M086B entitled 'Environmental Monitoring Plan' dated October 2007	Parameter	Limit (including units)[Note 1]	Monitoring frequency	Monitoring standard or method
GP25	Methane	4.1%v/v		
	Carbon Dioxide	2.5%v/v		
GP26A	Methane	2.6%v/v		
	Carbon Dioxide	2.5%v/v		
GP27	Methane	2.6%v/v		
	Carbon Dioxide	2.5%v/v		
GP28, GP30, GP31, GP32,	Methane	2.5%v/v		
	Carbon Dioxide	2.5%v/v		
GP33	Methane	3.3%v/v		
	Carbon Dioxide	2.5%v/v		
GP34	Methane	3.3%v/v		
	Carbon Dioxide	2.5%v/v		
GP35	Methane	3.3%v/v		
	Carbon Dioxide	2.5%v/v		
GP36	Methane	3.2%v/v		
	Carbon Dioxide	2.5%v/v		
GP37	Methane	4.8%v/v		
	Carbon Dioxide	2.5%v/v		
GP39	Methane	2.8%v/v		
	Carbon Dioxide	2.5%v/v		
GP40	Methane	2.5%v/v		
	Carbon Dioxide	2.5%v/v		
GPL1	Methane	4.9%v/v		
	Carbon Dioxide	2.5%v/v		
GPL2	Methane	2.8%v/v		
	Carbon Dioxide	2.5%v/v		

Table S3.5 Landfill gas in external monitoring boreholes – limits and monitoring requirements				
Monitoring point Ref. /description as shown on Drawing 465M086B entitled 'Environmental Monitoring Plan' dated October 2007	**Parameter**	**Limit (including units)[Note 1]**	**Monitoring frequency**	**Monitoring standard or method**
GP1 – GP25, GP26A, GP27, GP28, GP30 – GP37, GP39 – GP40, GPL1, GPL2	Oxygen	no limit		
	Atmospheric pressure	no limit		
Note 1: The limits specified for carbon dioxide take account of the background concentrations in the revised_ Monitoring Schedule B2.3.32 dated 23 February 2007.	Differential pressure	no limit		
Note 3: Limits to be confirmed (TBC) in accordance with pre-operational condition 9 in table 1.4.				

Table S3.6 Landfill gas emissions from capped surfaces – monitoring requirements			
Monitoring point Ref. /description	**Parameter**	Monitoring frequency	Monitoring Standard or method
Permanently capped zone	Methane concentration	Every 12 months	As per LFTGN 07 (v2 2011) 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 2011) 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 2011) 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.

Table S3.7 Groundwater – other monitoring requirements			
Monitoring Point Ref. /Description	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**
Up gradient MEPP	Water level, electrical conductivity, chloride, ammoniacal nitrogen, pH,	Quarterly	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), Horizontal Guidance Note H1 – Environmental Risk Assessment for permits, Annex J, version 2, April 2010), or such other subsequent guidance as may be agreed in writing with the Environment Agency.
	total alkalinity, magnesium, potassium, total sulphates, calcium, sodium, chromium, copper, iron, lead, nickel, zinc, manganese	Annually	
	Hazardous substances	Annually for first six years of operation	
Down or cross gradient MEPP	Water level, electrical conductivity, chloride, ammoniacal nitrogen, pH,	Quarterly	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), Horizontal Guidance Note H1 – Environmental Risk Assessment for permits, Annex J, version 2, April 2010), or such other subsequent guidance as may be agreed in writing with the Environment Agency. 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.
	total alkalinity, magnesium, potassium, total sulphates, calcium, sodium, chromium, copper, iron, lead, nickel, zinc, manganese	Annually	
	Hazardous substances detected in leachate	Annually for first six years of operation then every two years	
MEPP	Base of monitoring point (mAoD)	Annually	

Table S3.8 Landfill gas – other monitoring requirements				
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 of 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. 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 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 of 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 odour management plans.

Table S3.8 Landfill gas – other monitoring requirements				
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 undertake 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 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.
Input to flare or LFG Utilisation Compound	Trace gas	Annually	Trace gas analysis in accordance with LFTGN04 or such other subsequent guidance as may be agreed in writing 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 S3.8 Landfill gas – other monitoring requirements				
Monitoring Point Ref. /Description	**Parameter**	Monitoring frequency	Monitoring standard or method	Other specifications
Input 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.
Flares A8 to A12 shown on Drawing No2, titled 'Site Layout Plan' dated 11/2/11	Temperature	As per LFTGN05 (Version 2, March 2011) or such other subsequent guidance as may be agreed in writing with the Environment Agency.	As per M2 or such other subsequent guidance as may be agreed in writing with the Environment Agency.	
A1 – A7 and A13 –A16 Gas engine, post turbo Shown on Drawing No2, titled 'Site Layout Plan' dated 11/2/11	NOx and CO	Quarterly	In accordance with Appendix C of LFTGN08, version 2: 2010 or such other subsequent guidance as may be agreed in writing with the Environment Agency.	Where monitoring using hand-held, electrochemical equipment indicates an exceedance of the emissions standards specified in Table S3.2, these shall be used as action levels and the operator shall investigate the cause and take appropriate measures to reduce emissions

Table S3.9 Leachate – other monitoring requirements				
Monitoring point reference or description	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
Operational Cells or Phases (Any cell or phases that do not have a final engineered cap agreed in accordance with condition 2.6)			At leachate compliance point as listed in table S3.1.	
MEPP	pH, EC, total alkalinity, ammoniacal nitrogen, Chloride, COD, BOD, cadmium, chromium, copper, lead, nickel, iron, arsenic, magnesium, potassium, total sulphates, calcium, sodium, zinc, manganese	Quarterly	As specified in Environment Agency Guidance TGN02 (February 2003) and Horizontal Guidance Note H1 – Environmental Risk Assessment for permits, Annex J, version 2, April 2010) with one sampling point per cell / phase or such other subsequent guidance as may be agreed in writing with the Environment Agency.	None
MEPP	Hazardous substances	Annually		None
MEPP	Depth to base (mAoD)	Annually		None
Non Operational Cells or Phases (Any cell or phases that have a final engineered cap agreed in accordance with condition 2.6)				
MEPP	pH, EC, total alkalinity, ammoniacal nitrogen, Chloride, COD, BOD, cadmium, chromium, copper, lead, nickel, iron, arsenic, magnesium, potassium, total sulphates, calcium, sodium, zinc, manganese,	Annually		
MEPP	Hazardous substances	Once every four years		None

Table S3.9 Leachate – other monitoring requirements				
Monitoring point reference or description	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
MEPP	Depth to base (mAoD)	Annually		

Table S3.10 Surface water – other monitoring requirements				
Monitoring Point Ref. /Description	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
MEPP	Ammoniacal nitrogen Chloride Suspended Solids Visual Oil and Grease pH electrical conductivity	Monthly	Spot sample	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003) and Horizontal Guidance Note H1 – Environmental Risk Assessment for permits, Annex J3, version 2.1, Dec 2011) or such other subsequent guidance as may be agreed in writing with the Environment Agency.

Table S3.11 Ambient air – other monitoring requirements					
Monitoring Point Ref. /Description	**Parameter**	**Limit***	**Reference Period**	**Monitoring frequency**	**Monitoring standard or method**
Ambient air monitoring points as detailed in drawing number 465M416A and Procedure EMS-3-13.21-LNF-CAL, section 5.4.	Methane (assumed to be 98% of FID reading)	10 ppm	Spot sample	Monthly and after a substantiated odour complaint	Portable Flame Ionisation Detector (ppm range)
At maximum ambient methane exceedence location (determined by above monitoring)	Hydrogen sulphide	10 ppb	Spot sample	When methane limit exceeded and after a substantiated	Portable Flame Ionisation Detector (ppb range)

Table S3.11 Ambient air – other monitoring requirements					
Monitoring Point Ref. /Description	**Parameter**	**Limit***	**Reference Period**	**Monitoring frequency**	**Monitoring standard or method**
				odour complaint	

*The limit specified takes account of established background concentrations (0 ppm)

Schedule 4 - Reporting

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

Table S4.1 Reporting requirements

Parameter	Reporting period *	Period ends
Leachate and/ or groundwater level As specified by schedule 3, table S3.1	Every 3 months	31 March, 30 June, 30 September, 31 December
Point source emission to air As specified by schedule 3, table S3.2	Every 12 months	31 December
Point source emission to water (other than sewer) As specified by schedule 3, table S3.3	Every 3 months	31 March, 30 June, 30 September, 31 December
Emission to groundwater As specified by schedule 3, table S3.4	Every 3 months	31 March, 30 June, 30 September, 31 December
Landfill gas in external monitoring boreholes As specified by schedule 3, table S3.5	Every 3 months	31 March, 30 June, 30 September, 31 December
Emission of landfill gas from capped surfaces As specified by schedule 3, table S36	Every 12 months	31 December
Other groundwater monitoring As specified by schedule 3, table S37	Every 3 months	31 March, 30 June, 30 September, 31 December
Other Landfill gas monitoring As specified by schedule 3, table S3.8	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 S3.9	Every 12 months	31 December
• Hazardous substances	Every 12 months	31 December
Other surface water monitoring As specified by schedule 3, table S3.10	Every 12 months	31 December
Meteorological data Landfill Directive, annex III, section 2	Every 12 months	31 December
Other ambient air monitoring As specified by Schedule 3, table S3.11	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;	
Disposed of to any onsite effluent treatment plant;	
Recirculated into the waste mass.	
Accepted from offsite for treatment at any onsite effluent treatment plant.	

Table S4.2: Annual production/treatment	
Landfill gas: combustion in flares; combustion in gas engines; Other methods of gas utilisation.	Normalised cubic metres/year
Average methane content entering the landfill gas utilisation or treatment compound (based on the annual average of Table S3.10 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	28/10/2014
Air	Form Air 1 or other reporting format to be agreed in writing with the Environment Agency	28/10/2014
Controlled water	Form Water 1 or other reporting format to be agreed in writing with the Environment Agency	28/10/2014
Groundwater	Form Groundwater 1 or other reporting format to be agreed in writing with the Environment Agency	28/10/2014
Landfill gas	Form LFG 1 or other reporting format to be agreed in writing with the Environment Agency	28/10/2014
Waste Return	Waste Return Form RATS2E	
Landfill topographical surveys and interpretation	Reporting format to be agreed in writing with the Environment Agency	

Schedule 5 - Notification

This page outlines the information that the operator must provide.

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

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

Part A

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

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

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

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

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

Part B to be supplied as soon as practicable

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

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 - Interpretation

"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.

"emissions to land" includes emissions to groundwater.

"EP Regulations" means The Environmental Permitting (England and Wales) Regulations 2010, SI 2010 No.675. 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 or background concentration 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.

"Hazardous substances" as defined by the Environmental Permitting (England and Wales) Regulations 2010, SI 2010 No.675, schedule 22 and listed in our Hydrogeological risk assessment guidance, annex J to our H1 risk assessment guidance.

"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.

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

"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.

"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.

"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

"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.

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

"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.

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

"MCERTS" means the Environment Agency's Monitoring Certification Scheme.

"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).

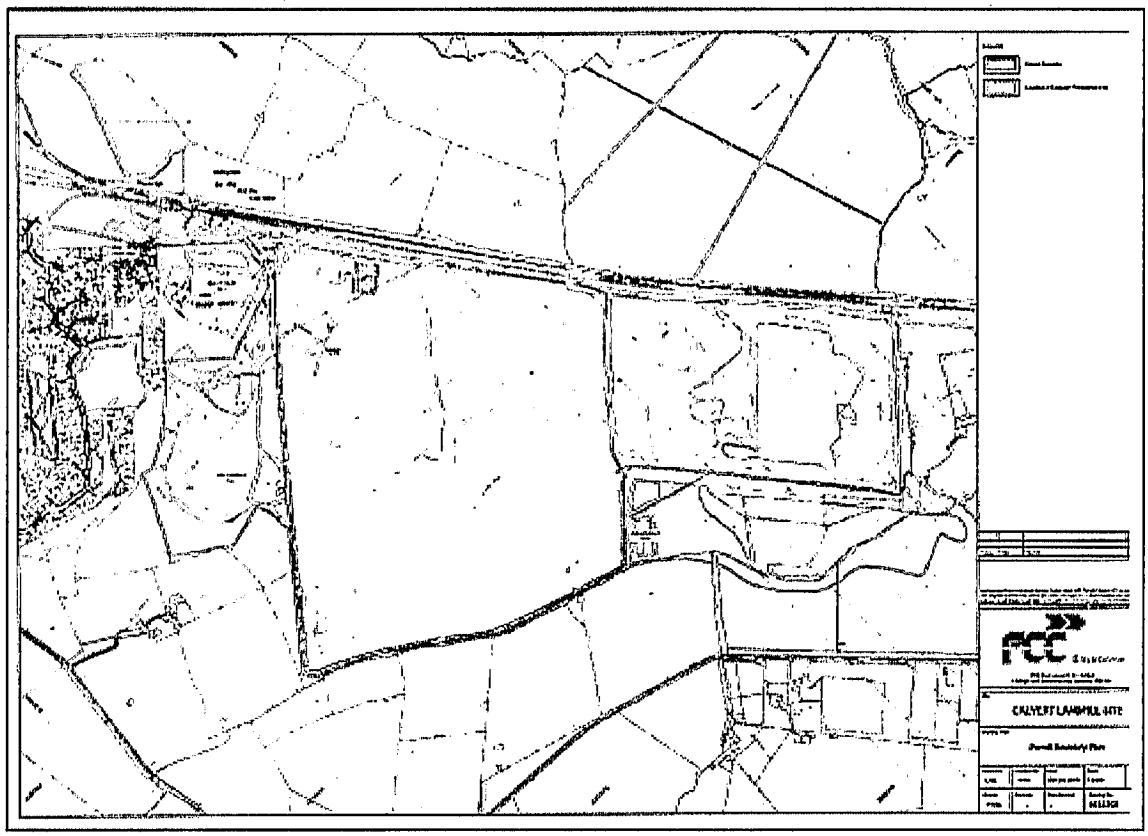
"Review of the Hydrogeological Risk Assessment" means a written review of the hydrogeological risk assessment included in the Application, together with any other parts of the Application that addressed the requirements of the EP Regulations. The review shall assess whether the activities of disposal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

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

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

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.

Schedule 7 – Site Plan



END OF PERMIT.

Permit Number: BS8605IQ Operator: FCC Waste Services (UK) Limited

Facility: Calvert Landfill Form Number: Air1 / 31/10/2014

Reporting of emissions to air for the period from DD/MM/YYYY **to** DD/MM/YYYY

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

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

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

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

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

Signed ..... Date.....

(Authorised to sign as representative of Operator)

Permit Number: BS8605IQ Operator: FCC Waste Services (UK) Limited

Facility: Calvert Landfill Form Number: Water1 / 31/10/2014

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

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

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

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

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

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

Signed ..... Date.....

(Authorised to sign as representative of Operator)

Permit Number: BS8605IQ Operator: FCC Waste Services (UK) Limited

Facility: Calvert Landfill Form Number: Leachate 1 / 31/10/2014

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

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

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

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

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

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

Signed ..... Date.....

(Authorised to sign as representative of Operator)

Permit Number: BS8605IQ Operator: FCC Waste Services (UK) Limited

Facility: Calvert Landfill Form Number: Groundwater1 / 31/10/2014

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

Monitoring Point	Substance / Parameter	Trigger level	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]

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

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

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

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

Signed ..... Date.....

(Authorised to sign as representative of Operator)

Permit Number: BS8605IQ Operator: FCC Waste Services (UK) Limited

Facility: Calvert Landfill Form Number: LFG1 / 31/10/2014

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

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

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

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

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

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

Signed ..... Date.....

(Authorised to sign as representative of Operator)