



**ENVIRONMENT
AGENCY**

Variation Notice with introductory note

Environmental Permitting (England & Wales) Regulations 2007

Gerrards Cross Landfill

**Veolia ES (UK) Ltd
Oxford Road
Gerrards Cross
Buckinghamshire
SL9 8TG**

Variation Notice number

BU3086/V002

Permit number

BU3086

Introductory note

This introductory note does not form a part of the permit

The following notice, which is issued under regulation 20 and Part 1 of Schedule 5 of the Environmental Permitting (England and Wales) Regulations 2007 (S.I.2007 No. 3538) (the Regulations), gives notice of the variation of an environmental permit to operate part of a regulated facility. Schedule 1 of this notice lists any deleted conditions, schedule 2 lists any amended conditions and schedule 3 lists any conditions that have been added.

A non-technical description of the installation is given in the Application, but the main features of the installation are as follows:

Hyde Farm and Wapsey Wood Landfills are located between the M40 and A40, east of Beaconsfield and west of Gerrard's Cross at NGR SU976888. Hyde Farm Landfill is a fully engineered non-hazardous landfill accepting commercial, industrial and household waste. However it accepted hazardous waste until 16th July 2004.

The application area includes the adjacent, Wapsey's Wood Landfill, which comprises nine fully engineered cells, as well as areas of dilute and disperse. Due to planning restrictions placed upon the site, it will cease landfilling in 2012.

The site is operated by Veolia ES (UK) Ltd formerly Veolia ES Onyx Ltd.

The landfill is to be restored to a gently sloping surface tailored to be sympathetic with the local topography, with final restoration proposed for 2012.

Leachate and gas are managed on the site, with leachate recirculated through the landfill in parts of the site and also tankered off site to a treatment works for disposal. Landfill gas is burnt in a flare or utilised to generate electricity in engines operated by Infinis Ltd.

In the north west corner of the Hyde Farm part of the site a household waste recycling centre has been developed by Buckinghamshire County Council and is operated by ASM Metal Recycling Ltd under permit number eawml 80718 which was issued on 21/07/2006. This activity does not form part of the installation although it lies within the installation boundary.

Status Log of the Permit

Detail	Date	Response Date
Application BU3086 (reference BU3086/A001)	Received 20/05/2003	
Response to request for information 1	Received 27/10/2003	
Response to request for information 2	Dated 10/2003	
Response to request for information 3	26/09/2003	
Response to Schedule 4 Part 1 Notice	Not applicable	
Permit BU3086 (reference BU3086/A001) determined	05/02/2004	
Notification of change of name to Veolia ES Onyx Ltd	13/02/2006	
Notification of change of name to Veolia ES (UK) Ltd	18/10/2006	
Variation BU3086/V002 issued	25/09/2008	

Other permits relating to this installation

Operator	Permit Number	Date of Issue
Infinis (Re-Gen) Ltd	HP3630LN	20/06/2006

Superseded or partially superseded licences/authorisations/consents relating to this installation

Holder	Reference Number	Date of Issue	Fully or Partially Superseded
Gerrards Cross Waste Disposal Ltd	EAWML 80507	30/01/2001	Fully Superseded
Gerrards Cross Waste Disposal Ltd	EAWML 80002	26/06/1990	Fully Superseded

End of Introductory Note

Notice of variation

Environmental Permitting (England and Wales) Regulations 2007

Variation Notice

Permit number

BU3086

Variation Notice number

BU3086/V002

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2007 (S.I. 2007 No. 3538) varies the permit as set out below.

Veolia ES (UK) Ltd ("the Operator"),

whose registered office is

**Veolia House
154a Pentonville Road
London
N1 9PE**

Company registration number **02481991**

holds a permit to operate part of a regulated facility at

**Gerrards Cross Landfill
Oxford Road
Gerrards Cross
Buckinghamshire
SL9 8TG**

and that permit is varied to the extent set out in schedules 1 to 3 of this variation notice.

The variation shall take effect from 25th September 2008.

Signed

Date

	25 th September 2008
---	---------------------------------

Martin Jenkins

Authorised to sign on behalf of the Environment Agency

SCHEDULE 1 - CONDITIONS TO BE DELETED

All existing conditions and schedules for permit BU3086 are deleted.

SCHEDULE 2 - CONDITIONS TO BE AMENDED

No conditions to be amended.

SCHEDULE 3 - CONDITIONS TO BE ADDED

The following conditions and schedules are added to the permit:

Conditions

1. Management

1.1 General management

- 1.1.1 The activities shall be managed and operated:
- (a) in accordance with a management system, which identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents and non-conformances and those drawn to the attention of the operator as a result of complaints; and
 - (b) by sufficient persons who are competent in respect of the responsibilities to be undertaken by them in connection with the operation of the activities.
- 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.

1.2 Accidents that may cause pollution

- 1.2.1 The operator shall:
- (a) maintain and implement an accident management plan;
 - (b) review and record at least every 4 years or as soon as practicable after an accident, (whichever is the earlier) whether changes to the plan should be made;
 - (c) make any appropriate changes to the plan identified by a review.

1.3 Finance

- 1.3.1 The financial provision for meeting the obligations under this permit set out in the agreement made between the operator and the Agency dated 5/02/2004 shall be maintained by the operator throughout the subsistence of this permit and the operator shall produce evidence of such provision whenever required by the Agency.
- 1.3.2 The operator shall ensure that the charges it makes for the disposal of waste in the landfill cover the cost of operating the landfill, as far as possible the cost of the financial provision required by condition 1.3.1 and the estimated costs for the closure and aftercare of the landfill.

1.4 Energy efficiency

- 1.4.1 The operator shall:
- (a) Review and record at least every 4 years whether there are suitable opportunities to improve the energy efficiency of the activities; and
 - (b) Implement any appropriate measures identified by a review.

1.5 Site security

1.5.1 Site security measures shall prevent unauthorised access to the site, as far as practicable.

1.6 Multiple operator installations

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

2. Operations

2.1 Permitted activities

- 2.1.1 The operator is 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 2 to this permit, which is within the area edged in red on the site plan that represents the extent of the installation covered by this permit and that of the other operator of the installation.

2.3 Operating techniques

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

2.4 Off-site conditions

There are no conditions in this permit to which regulation 15 of the EP Regulations apply.

2.5 Improvement programme

- 2.5.1 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 Agency.
- 2.5.2 Except in the case of an improvement which consists only of a submission to the Agency, the operator shall notify the Agency within 14 days of completion of each improvement.

2.6 Pre-operational conditions

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

2.7 Engineering

- 2.7.1 No construction of any new cell shall commence until the operator has submitted construction proposals and the Agency has confirmed that it is satisfied with the construction proposals.
- 2.7.2 The construction of a new cell shall take place only in accordance with the approved construction proposals unless:
- (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or
 - (b) a change has otherwise been agreed in writing by the Agency.

- 2.7.3 No disposal of waste shall take place in a new cell until the operator has submitted a CQA Validation Report and the Agency has confirmed that it is satisfied with the CQA Validation Report.
- 2.7.4 No construction of landfill Infrastructure shall commence until the operator has submitted relevant construction proposals or a written request to use previous construction proposals and the Agency has confirmed that it is satisfied with the construction proposals.
- 2.7.5 The construction of the landfill Infrastructure shall take place only in accordance with the approved construction proposals unless:
- (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or
 - (b) a change has otherwise been agreed in writing by the Agency.
- 2.7.6 The operator shall submit a CQA Validation Report as soon as practicable following the construction of the relevant landfill Infrastructure.
- 2.7.7 Where pollution controls are immediately necessary to prevent an incident or accident, then conditions 2.7.4 and 2.7.5 do not apply and the relevant landfill Infrastructure may be constructed, provided that the construction proposals are submitted to the Agency as soon as practicable.
- 2.7.8 For the purposes of conditions 2.7.1, 2.7.3 and 2.7.4, the Agency shall be deemed to be satisfied where it has not, within the period of 4 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.

2.8 Waste acceptance

- 2.8.1 Wastes shall only be accepted for disposal if:
- (a) they are listed in schedule 3, and
 - (b) they are non- hazardous waste and
 - (c) they are not whole used tyres (other than bicycle tyres and tyres with an outside diameter of more than 1400mm), and
 - (d) they are not shredded used tyres, and
 - (e) they are not liquid waste (including waste waters but excluding sludge), and
 - (f) they are not chemical substances from research and development or teaching activities, for example laboratory residues, which are unidentified and/or which are new and whose effects on man and/or the environment are unknown, and
 - (g) all the relevant waste acceptance procedures have been completed, and
 - (h) they fulfil the relevant waste acceptance criteria, and
 - (i) they have not been diluted or mixed solely to meet the relevant waste acceptance criteria, and

- (j) they are wastes which have been treated, except for: inert wastes for which treatment is not technically feasible; or it is waste other than inert waste and treatment would not reduce its quantity or the hazards which it poses to human health or the environment, and
- (k) any code beginning with 07 05 and 16 03 shall exclude waste medicinal products and pharmaceutically active waste materials arising from their manufacture.

2.8.5 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.

2.8.6 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.

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

2.8.8 The total quantity of waste that shall be deposited in the landfill shall be limited by the pre-settlement levels shown on drawing reference 340_FRC_0708.

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

2.8.10 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.

2.9 Leachate levels

2.9.1 The limits for the level of leachate listed in schedule 4 table S4.1 shall not be exceeded.

2.10 Closure, aftercare and decommissioning

2.10.1 The operator shall maintain and operate the activities so as to prevent or where that is not practicable, to minimise, any pollution risk on closure and decommissioning.

2.10.2 The operator shall maintain a site closure plan which demonstrates how the activities can be decommissioned to avoid any pollution risk and return the site of operation to a satisfactory state.

2.10.3 The operator shall carry out and record a review of the site closure plan at least every 4 years.

2.10.4 The site closure plan (or relevant part thereof) shall be implemented on final cessation or decommissioning of the activities or part thereof.

2.11 Site protection and monitoring programme

- 2.11.1 The operator shall, within 6 months of the issue of this variation submit a Site Protection and Monitoring Programme.
- 2.11.2 The operator shall implement and maintain the Site Protection and Monitoring Programme in relation to all areas which will not comprise permanent deposits of waste and shall carry out and record a review of it at least every 4 years commencing from the date the Site Protection and Monitoring Programme was received.

3. Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 4 tables S4.2 and S4.3.
- 3.1.2 The limits given in that schedule shall not be exceeded, save that compliance with an emission limit shall include incorporation of the uncertainty allowance stated in Agency guidance LFTGN 05 and LFTGN 08.

3.2 Emissions to groundwater

- 3.2.1 There shall be no emission from the activities into groundwater of any substance in List I (as defined by the Groundwater Regulations) contrary to those regulations.
- 3.2.2 There shall be no emission from the activities into groundwater of any substance in List II (as defined in the Groundwater Regulations) so as to cause pollution (as defined in those regulations).
- 3.2.3 The trigger levels for emissions into groundwater for the parameter(s) and monitoring point(s) set out in schedule 4 table S4.4 shall not be exceeded.
- 3.2.4 The operator shall submit to the Agency a review of the Hydrogeological Risk Assessment:
 - (a) between 9 and 6 months prior to the fourth anniversary of the granting of the permit, and
 - (b) between 9 and 6 months prior to every subsequent 4 years after the fourth anniversary of the granting of the permit.

3.3 Fugitive emissions of substances

- 3.3.1 Fugitive emissions of substances (excluding odour, noise and vibration) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.3.2 Litter or mud arising from the activities shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, have been used to prevent or where that is not practicable to minimise, the litter and mud.
- 3.3.3 Litter or mud arising from the activities shall be cleared from affected areas outside the site as soon as practicable.
- 3.3.4 All liquids, 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.
- 3.3.5 The limits for landfill gas arising from the installation set out in schedule 4, tables S4.5 and S4.6, shall not be exceeded.

3.4 Odour

- 3.4.1 Emissions from the activities shall be free from odour at levels likely to cause annoyance outside the site, as perceived by an authorised officer of the Agency, unless the operator has used appropriate measures, to prevent or where that is not practicable to minimise the odour.

3.5 Noise and vibration

- 3.5.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause annoyance outside the site, as perceived by an authorised officer of the Agency, unless the operator has used appropriate measures to prevent or where that is not practicable to minimise the noise and vibration.

3.6 Monitoring

- 3.6.1 The operator shall, unless otherwise agreed in writing by the Agency, undertake the monitoring specified in the following tables in schedule 4 to this permit:
- (a) Leachate specified in tables S4.1 and S4.8;
 - (b) Point source emissions specified in tables S4.2 and S4.3;
 - (c) Groundwater specified in tables S4.4 and S4.9;
 - (d) Landfill gas specified in tables S4.5, S4.6, S4.7 and S4.10.
- 3.6.2 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.
- 3.6.3 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.
- 3.6.4 Within 10 months of the issue of this variation (unless otherwise agreed in writing by the Agency) the site reference data identified in the Site Protection and Monitoring Programme shall be collected and submitted to the 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 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) the Site Protection and Monitoring Programme;
 - (iii) sub-surface landfill gas monitoring;
 - (iv) leachate levels, quality and quantities,
 - (v) landfill gas generation and collection;
 - (vi) waste types and quantities;
 - (vii) the location of hazardous waste deposits; and
 - (viii) the specification and as built drawings of the basal, sidewall and capping engineering systems.

4.1.2 Any records required to be made by this permit shall be supplied to the Agency within 14 days where the records have been requested in writing by the Agency.

4.1.3 All records required to be held by this permit shall be available for inspection by the Agency at any reasonable time.

4.2 Reporting

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

- (a) a review of the results of the monitoring and assessment carried out in accordance with this permit against the relevant assumptions, parameters and results in the risk assessments submitted with the application;
- (b) where the operator's management system encompasses annual improvement targets, a summary report of the previous year's progress against such targets;
- (c) the energy consumed at the site, reported in the format set out in schedule 5 table S5.3;
- (d) the annual production/treatment set out in schedule 5 table S5.2;
- (e) details of any contamination or decontamination of the site which has occurred;

- (f) the topographical surveys required by condition 3.6.3 other than those submitted as part of a CQA validation report;
- (g) 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;
- (h) 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;
- (i) a calculation of the remaining capacity (reported in cubic metres) derived from the pre-settlement contours and the most recent topographical survey.

4.2.2 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the 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 5 table S5.1;
- (b) for the reporting periods specified in schedule 5 table S5.1 and using the forms specified in schedule 5 table S5.4; and
- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.2.3 A summary report of the waste types and quantities accepted and removed from the site shall be made for each quarter. It shall be submitted to the Agency within one month of the end of the quarter and shall be in the format required by the Agency.

4.2.4 The operator shall, unless notice under this condition has been served within the preceding 4 years, submit to the Agency, within 6 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.

4.2.5 All reports and notifications required by the permit shall be sent to the Agency using the contact details supplied in writing by the Agency.

4.2.6 The results of reviews and any changes made to the Site Protection and Monitoring Programme shall be reported to the Agency, within 1 month of the review or change.

4.3 Notifications

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

- (a) any malfunction, breakdown or failure of equipment or techniques, accident, or fugitive emission which has caused, is causing or may cause significant pollution;
- (b) the breach of a limit specified in the permit;
- (c) any significant adverse environmental effects.

4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 6 to this permit within the time period specified in that schedule.

4.3.3. Prior written notification shall be given to the Agency of the following events and in the specified timescales:

- (a) as soon as practicable prior to the permanent cessation of any of the permitted activities;
 - (b) as soon as practicable prior to the cessation of the landfill disposal activities, for a period likely to exceed 1 month; and
 - (c) at least 7 days prior to the resumption of the landfill disposal activities after a cessation notified under (b) above.
- 4.3.4 The Agency shall be given at least 14 days notice before implementation of any part of the site closure plan in respect of any activities other than the disposal of waste in the landfill.
- 4.3.5 Where the Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Agency when the relevant monitoring is to take place. The operator shall provide this information to the Agency at least 14 days before the date the monitoring is to be undertaken.
- 4.3.6 The Agency shall be notified within 7 days of any changes in technically competent management and the name of any incoming person together with evidence that such person has the required technical competence.
- 4.3.7 The Agency shall be provided, within 14 days of the operator or any relevant person being convicted of a relevant offence, (unless such information has already been notified to the Agency), with details of the nature of the offence, the place and date of conviction, and the sentence imposed.
- 4.3.8 The Agency shall be notified within 14 days of the operator and/or any relevant person lodging an appeal against a conviction for any relevant offence and of the outcome when the appeal is decided.
- 4.3.9 The Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:
- (a) any change in the operator's trading name, registered name or registered office address;
 - (b) any change to particulars of the operator's ultimate holding company (including details of an ultimate holding company where an operator has become a subsidiary); and
 - (c) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

4.4 Interpretation

- 4.4.1 In this permit the expressions listed in schedule 7 shall have the meaning given in that schedule.

Schedule 1 - Operations

Table S1.1 Activities

Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
Section 5.2 Part A(1) (a) , The disposal of waste in a landfill.	Landfill for non-hazardous waste (landfill classification under the Landfill Directive 1999)	Non-hazardous and inert wastes consisting of the types and quantities specified in conditions 2.8, as an integral part of landfilling.
Directly Associated Activity		
Leachate management	Treatment of leachate pre-discharge in a facility with a capacity of <50 tonnes/day	Leachate arising from the landfill.
Leachate management	Storage of leachate in a tank pending treatment or recirculation	Leachate arising from the landfill
Landfill gas flaring	Flaring of landfill gas for disposal in an appliance.	Landfill gas arising from the landfill.
Water discharges to controlled waters	Discharges of site drainage and abstracted groundwater.	From surface water management system to point of entry to controlled waters.
Fuel and oil storage	Storage of fuel and oil for the operation of plant and equipment.	From the fuel and/or oil storage tank or bowser to the point of discharge.

Table S1.2 Operating techniques

Description	Parts	Date Received
Application	The response to questions 1.2, 2.1, 2.2, 2.3, 2.4 and 2.5 in Part B of the Application	20/05/2003
Scheme for the installation of perimeter gas boreholes in response to permit conditions 2.2.7.6 and 2.2.7.7	All	28/06/2004
Odour Monitoring and Management Plan Submitted in response to former improvement programme reference 1.	All	27/07/2004
Landfill Gas Management Plan for Hyde Farm Submitted in response to permit condition 2.2.4.5.	All	03/08/2004
Trace Gas Report reference 4A-156-025 Submitted in response to permit condition 2.2.4.3	All	25/04/2005
Flare emissions report reference 4A-156-027	All	April 2005
Aerial emissions monitoring proposals in response to permit condition 2.2.4.2	All	25/04/2005
Surface Water Monitoring Programme Submitted in response to former improvement programme reference 2a.	All	25/04/2005 and 18/07/2006
Surface Water Action Plan Submitted in response to former permit improvement programme reference 2d.	All	25/04/2005 and 18/07/2006
Routine Monitoring Programme Submitted in response to former permit improvement programme reference 2c.	All	25/04/2005 and 18/07/2006

Table S1.2 Operating techniques

Description	Parts	Date Received
Flux box survey report Submitted in response to permit condition 2.2.4.6	All	29/06/2006
Revised drawing reference GX_10, revision 10 showing the monitoring point locations	All	16/07/2008
Revised installation drawing reference 340_BDRY_0708	All	16/07/2008

Table S1.3 Improvement programme requirements

Reference	Requirement	Date
1	The operator shall submit a Landfill Gas Risk Assessment for the whole site in writing to the Agency for approval.	31/12/2008
2	The operator shall review the landfill gas monitoring data for all perimeter gas monitoring boreholes referenced "WW" in order to determine background concentrations of carbon dioxide and methane and the operator shall propose trigger levels for carbon dioxide and methane for all these perimeter gas monitoring boreholes. The operator shall submit a report of the review together with the proposed trigger levels to the Agency in writing for approval.	30/09/2008

Table S1.4 Pre-operational measures for future development

Reference	Operation	Pre-operational Measures
1	Side slope construction	The operator shall ensure that groundwater from the side slope of Hyde Farm Landfill is collected to ensure that no head of groundwater is maintained beneath the side wall liner.
2	Side wall construction	The operator shall ensure that all geomembranes used within the side wall liner will have interface shear strength values with the underlying compacted clay to ensure that the slope remains stable under confined and un-confined conditions.
3	Landfilling within each future phase of Hyde Farm landfill	At least 4 months prior to the commencement of landfilling within each future phase of Hyde Farm landfill which has a boundary with natural materials or non-waste made ground the operator shall install perimeter landfill gas monitoring boreholes in the external boundary of that phase. The boreholes shall be installed at a minimum of 50 metre centres with the exception of the boundary in the vicinity of Hyde Farm buildings as shown on drawing reference GX_9 revision 9 where the boreholes shall be installed at 20 metre centres.

Table S1.5 Annual waste input limits

Category	Limit Tonnes/ Year
Non-hazardous waste (including inert waste)	900,000

Schedule 2 - Site plan



Extract from drawing reference 340_BDRY_0708. Not to scale.

Reproduced from the Ordnance Survey map with the permission of the Controller of Her Majesty's Stationery Office ©Crown Copyright 2000. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings.

Schedule 3 - List of permitted wastes

Table S3.1 Permitted Wastes

Waste Code	Description
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 01	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
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 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 02	wastes from preserving agents
02 03 03	wastes from solvent extraction
02 03 04	materials unsuitable for consumption or processing
02 04	wastes from sugar processing
02 04 01	soil from cleaning and washing beet
02 04 02	off-specification calcium carbonate
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 07	wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
02 07 03	wastes from chemical treatment
02 07 04	materials unsuitable for consumption or processing

Table S3.1 Permitted Wastes

Waste Code	Description
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 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
04 01	wastes from the leather and fur industry
04 01 02	liming waste
04 01 08	waste tanned leather (blue sheetings, shavings, cuttings, buffing dust) containing chromium
04 01 09	wastes from dressing and finishing
04 02	wastes from the textile industry
04 02 09	wastes from composite materials (impregnated textile, elastomer, plastomer)
04 02 10	organic matter from natural products (for example grease, wax)
04 02 15	wastes from finishing other than those mentioned in 04 02 14
04 02 17	dyesuffs and pigments other than those mentioned in 04 02 16
04 02 21	wastes from unprocessed textile fibres
04 02 22	wastes from processed textile fibres
05 01	wastes from petroleum refining
05 01 14	wastes from cooling columns
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 03	wastes from the MFSU of salts and their solutions and metallic oxides
06 03 14	solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13
06 03 16	metallic oxides other than those mentioned in 06 03 15
06 09	wastes from the MSFU of phosphorous chemicals and phosphorous chemical processes
06 09 02	phosphorous slag
06 11	wastes from the manufacture of inorganic pigments and opacifiers
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 02	wastes from the MFSU of plastics, synthetic rubber and man-made fibres
07 02 13	waste plastic
07 02 15	wastes from additives other than those mentioned in 07 02 14
07 05	wastes from the MFSU of pharmaceuticals excluding waste medicinal products and pharmaceutically active waste materials arising from their manufacture
07 05 14	solid wastes other than those mentioned in 07 05 13
06 02	wastes from MFSU of other coatings (including ceramic materials)
08 02 01	waste coating powders

Table S3.1 Permitted Wastes

Waste Code	Description
08 03	wastes from MFSU of printing inks
08 03 13	waste ink other than those mentioned in 08 03 12
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
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 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
10 01 19	wastes from gas cleaning other than those mentioned in 10 01 05, 10 01 07 and 10 01 18
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

Table S3.1 Permitted Wastes

Waste Code	Description
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
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

Table S3.1 Permitted Wastes

Waste Code	Description
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 10	solid wastes from gas treatment other than those mentioned in 10 12 09
10 12 12	wastes from glazing other than those mentioned in 10 12 11
10 13	wastes from manufacture of cement, lime and plaster and articles and products made from them
10 13 01	waste preparation mixture before thermal processing
10 13 04	wastes from calcination and hydration of lime
10 13 06	particulates and dust (except 10 13 12 and 10 13 13)
10 13 07	Sludges and filter cakes from gas treatment
10 13 10	wastes from asbestos-cement manufacture other than those mentioned in 10 13 09
10 13 11	wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10
10 13 13	solid wastes from gas treatment other than those mentioned in 10 13 12
10 13 14	waste concrete and concrete sludge
11 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 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 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 01	packaging (including separately collected municipal packaging waste)
15 01 01	paper and cardboard packaging
15 01 02	plastic packaging
15 01 03	wooden packaging

Table S3.1 Permitted Wastes

Waste Code	Description
15 01 04	metallic packaging
15 01 05	composite packaging
15 01 06	mixed packaging
15 01 07	glass packaging
15 01 09	textile packaging
15 02	absorbents, filter materials, wiping cloths and protective clothing
15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02
16 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 03	end of life tyres
16 01 12	brake pads other than those mentioned in 16 01 11
16 01 16	tanks for liquefied gas
16 01 17	ferrous metal
16 01 18	non-ferrous metal
16 01 19	plastic
16 01 20	glass
16 01 22	components not otherwise specified
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 excluding waste medicinal products and pharmaceutically active waste materials arising from their manufacture
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 05	gases in pressure containers and discarded chemicals
16 05 09	discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08
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 08 04	spent fluid catalytic cracking catalysts (except 16 08 07)
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 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

Table S3.1 Permitted Wastes

Waste Code	Description
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
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 08	gypsum-based construction material
17 08 02	gypsum-based construction materials other than those mentioned in 17 08 01
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 01	wastes from natal care, diagnosis, treatment or prevention of disease in humans
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 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 10	combustible wastes other than those mentioned in 19 02 08 and 19 02 09
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
19 05	wastes from aerobic treatment of solid wastes
19 05 01	non-composted fraction of municipal and similar wastes

Table S3.1 Permitted Wastes

Waste Code	Description
19 05 02	non-composted fraction of animal and vegetable waste
19 05 03	off-specification compost
19 06	wastes from anaerobic treatment of waste
19 06 04	digestate from anaerobic treatment of municipal waste
19 06 06	digestate from anaerobic treatment of animal and vegetable waste
19 08	wastes from waste water treatment plants not otherwise specified
19 08 01	screenings
19 08 02	waste from desanding
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 04	spent activated carbon
19 09 05	saturated or spent ion exchange resins
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 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
20 01	separately collected fractions (except 15 01)
20 01 01	paper and cardboard
20 01 02	glass
20 01 08	biodegradable kitchen and canteen waste
20 01 10	clothes
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

Table S3.1 Permitted Wastes

Waste Code	Description
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 06	waste from sewage cleaning
20 03 07	bulky waste

Schedule 4 – Emissions and monitoring

Table S4.1 Leachate level limits and monitoring requirements

Monitoring point reference/ Description	Limit	Monitoring frequency	Monitoring method
Hyde Farm – as shown on drawing reference GX_10 revision 10	1 m above cell base	Monthly	Electric dip meter
Wapseys Wood Contained Cells - as shown on drawing reference GX_10 revision 10	2 m above cell base	Monthly	Electric dip meter

Table S4.2 Point source emissions to air – emission limits and monitoring requirements

Emission point Ref. & Location	Parameter	Source	Limit (including unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
LFG Flare 1 (NGR SU95088900)	Oxides of Nitrogen	Landfill Gas Flares	150 mg/m ³	Hourly mean	Annually	Chemiluminescence
	CO		50 mg/m ³			Non-dispersive Infra red analysis
LFG Flare 2 (NGR SU96808900)	Total VOCs		10 mg/m ³			Extractive sampling and FID analysis
	NM VOCs		5 mg/m ³			Extractive sampling onto sorbent, extraction by CS ₂ , analysis by GC with appropriate detector

Table S4.3 Point source emissions to water (other than sewer) – emission limits and monitoring requirements

Emission point Ref. & Location	Parameter	Source	Limit (including unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
GXSWOOBH, GXSWOOLP, GXSWOM40, GXSWOGB, GXSWHGCP, GXSWOFP Future surface water monitoring locations GXSWOA40, GXSWOOB as shown on drawing reference GX_10 revision 10	Ammoniacal Nitrogen	Surface water drainage collection system	6.46 mg/l	Spot Sample	Monthly	In accordance with Agency guidance LTFGN02
	Suspended Solids		23 mg/l			
	pH		6-9			
	Oil and Grease		6.4 mg/l			

Table S4.3 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
GXSWOOBH, GXSWOOLP, GXSWOGB, GXSWOFP Future surface water monitoring locations GXSWOA40, GXSWOOB as shown on drawing reference GX_10 revision 10	chloride	Surface water drainage collection system	53.11 mg/l	Spot Sample	Monthly	In accordance with Agency guidance LTFGN02
GXSW00M40			75.9 mg/l			
GXSWHGCP			63.25 mg/l			

Table S4.4 Trigger levels for emissions into groundwater and monitoring requirements

Monitoring point reference	Parameter	Limit (including unit)	Reference Period	Monitoring frequency	Monitoring standard or method
HF2, HFAGW2A as shown on drawing reference GX_10 revision 10	Ammonium	0.5 mg/l	Spot Sample	Monthly	In accordance with Agency guidance LTFGN02
	Cadmium	5 µg/l			
	Chloride	250 mg/l			
HF4A as shown on drawing reference GX_10 revision 10	Ammonium	0.5 mg/l	Spot Sample	Monthly, at least 12 months prior to commencement of landfilling within Cell 4A	In accordance with Agency guidance LTFGN02
	Cadmium	5 µg/l			
	Chloride	250 mg/l			

Table S4.5 Landfill gas in external monitoring boreholes – limits and monitoring requirements

Monitoring point Ref. /description	Parameter	Limit (including units)	Monitoring frequency	Monitoring standard or method
HFG1 - HFG13 as shown on drawing reference GX_10 revision 10	Methane	1% v/v*	Monthly	In accordance with "Guidance on the management of landfill gas", Environment Agency, September 2004.
	Carbon dioxide	1.5% v/v*		
	Oxygen,	No limit		
	Atmospheric Pressure, Differential Pressure, Meteorological data			

Table S4.5 Landfill gas in external monitoring boreholes – limits and monitoring requirements

Monitoring point Ref. /description	Parameter	Limit (including units)	Monitoring frequency	Monitoring standard or method
WW01 - WW8, WW13 - WW28 and WW39 - WW41 and WWG42C00, WWG42B00, WWG42A00, WWG42000, WWG43A00, WWG43000, WWG44A00, WWG44000, WWG45A00, WWG45000, WWG46A00, WWG46000, WWG47A00, WWG47000, WWG48A00, WWG48000, WWG20A00, WWG20000, WWG19000, WWG20AA-AC, WWG20BA-BC, WWG20CA-CC, WWG42AA-AC, WWG43-AC, WWG44AA-AC as shown on drawing reference GX_10 revision 10	Methane	1% v/v above background**	Monthly	In accordance with "Guidance on the management of landfill gas", Environment Agency, September 2004.
	Carbon Dioxide	1.5% v/v above background**		
	Oxygen, Atmospheric Pressure, Differential Pressure, Meteorological data	No limit		

* - The limits specified take account of the agreed background concentrations in the application.

** - Trigger levels are as agreed in accordance with the requirements of table S1.3 reference 2.

Table S4.6 Landfill gas from capped surfaces - monitoring requirements

Monitoring point Ref. /description	Parameter	Monitoring frequency	Other specifications	Monitoring Standard or method
Permanently capped areas	Average Methane flux	Annually	Where a rate of 0.001 mg/m ² /second is exceeded appropriate measures must be taken to reduce the rate.	As per LFTGN07 or as otherwise agreed in writing by the Agency*
Temporarily capped areas	Average Methane flux	Annually	Where a rate of 0.1 mg/m ² /second is exceeded appropriate measures must be taken to reduce the rate.	As per LFTGN07 or as otherwise agreed in writing by the Agency*

Footnote * If a cap has previously been shown compliant and there have been no significant physical changes in the gas management during the year, a detailed walkover survey can be used to demonstrate that the surface emissions are under control. If this survey shows no change in the pattern of methane emission, it may be used as the annual survey and the values for average methane flux and total methane emissions measured in the previous year may be reported. A quantitative survey is not necessary. If the zone remains stable, the results of a detailed walkover survey will be acceptable for the annual report for a period of four years before a further quantitative survey is required.

Table S4.7 Landfill gas – other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
All in-waste gas monitoring wells All in-waste collection wells	Oxygen	Monthly	Portable Infra-Red Analyser	Where the Oxygen level exceeds 5% an assessment of air ingress into the system shall be undertaken as requested by the Agency
Representative sample	Trace gas analysis in accordance with LFTGN04	Annually	In accordance with LFTGN04 Guidance for monitoring trace gas components in landfill gas, Environment Agency, September 2004.	The concentration of trace gas components shall be assessed against the assumptions made in the Landfill gas risk assessment.

Table S4.8 Leachate– other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Leachate extraction wells (Sump from which leachate is removed from phase) as shown on drawing reference GX_10 revision 10	Leachate level, pH, EC and temperature.	Monthly	In accordance with Appendix 6 of the Agency's guidance document LFTGN01.	None
	Cl, NH ₄ -N, SO ₄ , Alk, COD, TON, TOC, BOD, Na, K, Ca and Mg.	Quarterly		
	Fe, Mn, Cd, Cr, Cu, Ni, Pb, Zn, Oil and Phenol	Annually		
	List I screen			

Table S4.9 Groundwater – other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
All groundwater monitoring boreholes as shown on drawing reference GX_10 revision 10 (excluding borehole WWGWK2)	Water level, monitoring point base, DO, pH, EC, NH ₄ -N, Cl and temperature	Monthly	In accordance with Appendix 6 of the Agency's guidance document LFTGN01.	None
All groundwater monitoring boreholes as shown on drawing reference GX_10 revision 10 (excluding borehole WWGWK2)	As monthly including; TON(oxidised-N), TOC, Ca, Mg, Na, K, Alk, SO ₄ , Fe, Mn, Cd, Cr, Cu, Ni, Pb, Zn and Ionic Balance.	Quarterly		

Table S4.9 Groundwater – other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
All groundwater monitoring boreholes as shown on drawing reference GX_10 revision 10 (excluding borehole WWGWK2)	Any List 1 substance found above MRV screening limits on the most recent three annual List 1 screening occasions required by Table S4.8 above.	Annually		

Table S4.10 Landfill gas in ambient air – limits and monitoring requirements

Monitoring point reference/description	Parameter	Limit (including unit) *	Reference Period	Monitoring Frequency	Monitoring Standard or Method
"Perimeter SEM route" as shown on drawing reference GX_10 revision 10	Trace Flammable Gases	50ppm	spot sample	Monthly or as otherwise agreed with the Agency	Flame Ionisation Detector (FID)

* The limits specified take account of the agreed background concentrations as detailed in the Gas Management Plan.

Schedule 5 - Reporting

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

Table S5.1 Reporting of monitoring data

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Leachate levels as required by condition 3.6.1	Hyde Farm – as shown on drawing reference GX_10 revision 10 Wapseys Wood Contained Cells - as shown on drawing reference GX_10 revision 10	Quarterly	05/02/2004
Emissions to air Parameters as required by condition 3.6.1	LFG Flare 1, LFG Flare 2, LFG Flare 3.	Annually	05/02/2004
Emissions to water Parameters as required by condition 3.6.1	GXSWOOBH, GXSWOOLP, GXSWOM40, GXSWOOGB, GXSWHGCP, GXSWOOF; Future surface water monitoring locations GXSWOA40, GXSWOOB	Quarterly	05/02/2004 From date of installation
Groundwater Parameters as required by condition 3.6.1	All groundwater monitoring boreholes as shown on drawing reference GX_10 revision 10 (excluding borehole WWGWK2)	Quarterly	05/02/2004
Ambient air monitoring Parameters as required by condition 3.6.1	"Perimeter SEM route" as shown on drawing reference GX_10 revision 10	Quarterly	05/02/2004
Landfill gas surface emissions Parameters as required by condition 3.6.1	Permanently capped areas Temporarily capped areas	Quarterly for monthly parameters, annually for annual parameters	05/02/2004
Landfill gas lateral migration Parameters as required by condition 3.6.1	HFG1 - HFG13, WW01 - WW8, WW13 - WW28 and WW39 - WW41 and WWG42C00, WWG42B00, WWG42A00, WWG42000, WWG43A00, WWG43000, WWG44A00, WWG44000, WWG45A00, WWG45000, WWG46A00, WWG46000, WWG47A00, WWG47000, WWG48A00, WWG48000, WWG20A00, WWG20000, WWG19000, WWG20AA-AC, WWG20BA-BC, WWG20CA-CC, WWG42AA-AC, WWG43-AC, WWG44AA-AC as shown on drawing reference GX_10 revision 10	Monthly	05/02/2004
Other landfill gas monitoring Parameters as required by condition 3.6.1	All in-waste gas monitoring wells All in-waste collection wells Input to LFG utilisation compound	Quarterly Annually	05/02/2004

Table S5.1 Reporting of monitoring data

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Other leachate monitoring Parameters as required by condition 3.6.1	Leachate extraction wells (Sump from which leachate is removed from phase) as shown on drawing reference GX_10 revision 10	Quarterly	05/02/2004
List 1 screen	Leachate extraction wells	Annually	
Other groundwater monitoring Parameters as required by condition 3.6.1	All groundwater monitoring boreholes as shown on drawing reference GX_10 revision 10	Annually	05/02/2004

Table S5.2: Annual production/treatment

Leachate: Disposed of off site; Disposed of to any onsite effluent treatment plant; Recirculated into the waste mass.	Cubic metres/year
Surface water and/ or groundwater: Disposed of off site; Disposed of to any onsite effluent treatment plant.	Cubic metres/year
Landfill gas: combustion in flares; combustion in gas engines; Other methods of gas utilisation.	Normalised cubic metres/year

Table S5.3 Performance Parameters

Parameter	Frequency of assessment	Annual total	Unit
Energy used (including for leachate treatment)	Annually		MWh of electricity

Table S5.4 Reporting Forms

Media/parameter	Reporting Format	Date of Form
Leachate	Form Leachate 1 or other reporting format to be agreed in writing with the Agency	25/09/2008
Air	Form Air 1 or other reporting format to be agreed in writing with the Agency	25/09/2008
Controlled water	Form Water 1 or other reporting format to be agreed in writing with the Agency	25/09/2008
Groundwater	Form Groundwater 1 or other reporting format to be agreed in writing with the Agency	25/09/2008
Landfill gas	Form LFG 1 or other reporting format to be agreed in writing with the Agency	25/09/2008
Waste Return	RATS2E	
Landfill topographical surveys and interpretation	Reporting format to be agreed in writing with the Agency	

Schedule 6 - 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 Installation	
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or fugitive emission 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 installation in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of Veolia ES (UK) Limited

Schedule 7 - 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 4 to the PPC Regulations

"*Authorised Officer*" means any person authorised by the 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.

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

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

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

"*EP Regulations*" means The Environmental Permitting (England and Wales) Regulations SI 2007 No.3538 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

"*Fugitive emission*" means an emission to air, water or land from the activities which is not controlled by an emission or background concentration limit.

"*Groundwater Regulations*" means the Groundwater Regulations SI 1998 No. 2746, and words and expressions used in this permit which are also used in the Regulations shall have the same meanings as in those Regulations.

"*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;

within the site.

"*Land Protection Guidance*" means Agency guidance "H7 - Guidance on the protection of land under the PPC Regime: Application site report and site protection monitoring programme".

"*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, September 2004.

"*LFTGN 08*" means Environment Agency Guidance for monitoring landfill gas engines, September 2004.

"*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.

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

- groundwater under-drainage system;
- permanent geophysical leak location system;

- leak detection layer;
- sub-grade;
- barriers;
- liners;
- leachate collection system;
- leachate abstraction system;
- separation bund/layer;
- cell or area surface water drainage system;
- side wall subgrade and containment systems;

for the New Cell.

"No impact" means that the change made to the construction process will not affect the agreed design criteria, specification or performance in a way that has a negative effect

"notify without delay" and "notified without delay" means that a telephone call can be used, whereas all other reports and notifications must be supplied in writing, either electronically or on paper.

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

"Relevant person" and "relevant conviction" shall have the meanings given to them in the Environmental Protection Act 1990

"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 Groundwater 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 Groundwater Regulations

"Site Protection and Monitoring Programme" means a document which meets the requirements for Site Protection and Monitoring Programmes described in the Land Protection Guidance.

"Technically competent management" and "technical competence" shall have the meanings given to them in the Environmental Protection Act 1990.

"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, List of Wastes (Northern Ireland) Regulations 2005 (as amended), or The Special Waste Amendment (Scotland) Regulations 2004 as appropriate, and in relation to hazardous waste, includes the asterisk

"Year" means calendar year ending 31 December.

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.

END OF PERMIT



**ENVIRONMENT
AGENCY**

Variation Notice with introductory note

Environmental Permitting (England & Wales) Regulations 2007

Gerrards Cross Landfill

**Veolia ES (UK) Ltd
Oxford Road
Gerrards Cross
Buckinghamshire
SL9 8TG**

Variation Notice number

BU3086/V002

Permit number

BU3086

Introductory note

This introductory note does not form a part of the permit

The following notice, which is issued under regulation 20 and Part 1 of Schedule 5 of the Environmental Permitting (England and Wales) Regulations 2007 (S.I.2007 No. 3538) (the Regulations), gives notice of the variation of an environmental permit to operate part of a regulated facility. Schedule 1 of this notice lists any deleted conditions, schedule 2 lists any amended conditions and schedule 3 lists any conditions that have been added.

A non-technical description of the installation is given in the Application, but the main features of the installation are as follows:

Hyde Farm and Wapsey Wood Landfills are located between the M40 and A40, east of Beaconsfield and west of Gerrard's Cross at NGR SU976888. Hyde Farm Landfill is a fully engineered non-hazardous landfill accepting commercial, industrial and household waste. However it accepted hazardous waste until 16th July 2004.

The application area includes the adjacent, Wapsey's Wood Landfill, which comprises nine fully engineered cells, as well as areas of dilute and disperse. Due to planning restrictions placed upon the site, it will cease landfilling in 2012.

The site is operated by Veolia ES (UK) Ltd formerly Veolia ES Onyx Ltd.

The landfill is to be restored to a gently sloping surface tailored to be sympathetic with the local topography, with final restoration proposed for 2012.

Leachate and gas are managed on the site, with leachate recirculated through the landfill in parts of the site and also tankered off site to a treatment works for disposal. Landfill gas is burnt in a flare or utilised to generate electricity in engines operated by Infinis Ltd.

In the north west corner of the Hyde Farm part of the site a household waste recycling centre has been developed by Buckinghamshire County Council and is operated by ASM Metal Recycling Ltd under permit number eawml 80718 which was issued on 21/07/2006. This activity does not form part of the installation although it lies within the installation boundary.

Status Log of the Permit		
Detail	Date	Response Date
Application BU3086 (reference BU3086/A001)	Received 20/05/2003	
Response to request for information 1	Received 27/10/2003	
Response to request for information 2	Dated 10/2003	
Response to request for information 3	26/09/2003	
Response to Schedule 4 Part 1 Notice	Not applicable	
Permit BU3086 (reference BU3086/A001) determined	05/02/2004	
Notification of change of name to Veolia ES Onyx Ltd	13/02/2006	
Notification of change of name to Veolia ES (UK) Ltd	18/10/2006	
Variation BU3086/V002 issued	25/09/2008	

Other permits relating to this installation

Operator	Permit Number	Date of Issue
Infinis (Re-Gen) Ltd	HP3630LN	20/06/2006

Superseded or partially superseded licences/authorisations/consents relating to this installation

Holder	Reference Number	Date of Issue	Fully or Partially Superseded
Gerrards Cross Waste Disposal Ltd	EAWML 80507	30/01/2001	Fully Superseded
Gerrards Cross Waste Disposal Ltd	EAWML 80002	26/06/1990	Fully Superseded

End of Introductory Note

Notice of variation

Environmental Permitting (England and Wales) Regulations 2007

Variation Notice

Permit number

BU3086

Variation Notice number

BU3086/V002

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2007 (S.I. 2007 No. 3538) varies the permit as set out below.

Veolia ES (UK) Ltd ("the Operator"),

whose registered office is

Veolia House

154a Pentonville Road

London

N1 9PE

Company registration number **02481991**

holds a permit to operate part of a regulated facility at

Gerrards Cross Landfill

Oxford Road

Gerrards Cross

Buckinghamshire

SL9 8TG

and that permit is varied to the extent set out in schedules 1 to 3 of this variation notice.

The variation shall take effect from 25th September 2008.

Signed

Date

	25 th September 2008
---	---------------------------------

Martin Jenkins

Authorised to sign on behalf of the Environment Agency

SCHEDULE 1 - CONDITIONS TO BE DELETED

All existing conditions and schedules for permit BU3086 are deleted.

SCHEDULE 2 - CONDITIONS TO BE AMENDED

No conditions to be amended.

SCHEDULE 3 - CONDITIONS TO BE ADDED

The following conditions and schedules are added to the permit:

Conditions

1. Management

1.1 General management

1.1.1 The activities shall be managed and operated:

- (a) in accordance with a management system, which identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents and non-conformances and those drawn to the attention of the operator as a result of complaints; and
- (b) by sufficient persons who are competent in respect of the responsibilities to be undertaken by them in connection with the operation of the activities.

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.

1.2 Accidents that may cause pollution

1.2.1 The operator shall:

- (a) maintain and implement an accident management plan;
- (b) review and record at least every 4 years or as soon as practicable after an accident, (whichever is the earlier) whether changes to the plan should be made;
- (c) make any appropriate changes to the plan identified by a review.

1.3 Finance

1.3.1 The financial provision for meeting the obligations under this permit set out in the agreement made between the operator and the Agency dated 5/02/2004 shall be maintained by the operator throughout the subsistence of this permit and the operator shall produce evidence of such provision whenever required by the Agency.

1.3.2 The operator shall ensure that the charges it makes for the disposal of waste in the landfill cover the cost of operating the landfill, as far as possible the cost of the financial provision required by condition 1.3.1 and the estimated costs for the closure and aftercare of the landfill.

1.4 Energy efficiency

1.4.1 The operator shall:

- (a) Review and record at least every 4 years whether there are suitable opportunities to improve the energy efficiency of the activities; and
- (b) Implement any appropriate measures identified by a review.

1.5 Site security

- 1.5.1 Site security measures shall prevent unauthorised access to the site, as far as practicable.

1.6 Multiple operator installations

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

2. Operations

2.1 Permitted activities

- 2.1.1 The operator is 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 2 to this permit, which is within the area edged in red on the site plan that represents the extent of the installation covered by this permit and that of the other operator of the installation.

2.3 Operating techniques

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

2.4 Off-site conditions

There are no conditions in this permit to which regulation 15 of the EP Regulations apply.

2.5 Improvement programme

- 2.5.1 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 Agency.
- 2.5.2 Except in the case of an improvement which consists only of a submission to the Agency, the operator shall notify the Agency within 14 days of completion of each improvement.

2.6 Pre-operational conditions

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

2.7 Engineering

- 2.7.1 No construction of any new cell shall commence until the operator has submitted construction proposals and the Agency has confirmed that it is satisfied with the construction proposals.
- 2.7.2 The construction of a new cell shall take place only in accordance with the approved construction proposals unless:
- (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or
 - (b) a change has otherwise been agreed in writing by the Agency.

- 2.7.3 No disposal of waste shall take place in a new cell until the operator has submitted a CQA Validation Report and the Agency has confirmed that it is satisfied with the CQA Validation Report
- 2.7.4 No construction of landfill Infrastructure shall commence until the operator has submitted relevant construction proposals or a written request to use previous construction proposals and the Agency has confirmed that it is satisfied with the construction proposals.
- 2.7.5 The construction of the landfill Infrastructure shall take place only in accordance with the approved construction proposals unless:
- (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or
 - (b) a change has otherwise been agreed in writing by the Agency
- 2.7.6 The operator shall submit a CQA Validation Report as soon as practicable following the construction of the relevant landfill Infrastructure
- 2.7.7 Where pollution controls are immediately necessary to prevent an incident or accident, then conditions 2.7.4 and 2.7.5 do not apply and the relevant landfill Infrastructure may be constructed, provided that the construction proposals are submitted to the Agency as soon as practicable.
- 2.7.8 For the purposes of conditions 2.7.1, 2.7.3 and 2.7.4, the Agency shall be deemed to be satisfied where it has not, within the period of 4 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.

2.8 Waste acceptance

- 2.8.1 Wastes shall only be accepted for disposal if:
- (a) they are listed in schedule 3, and
 - (b) they are non- hazardous waste and
 - (c) they are not whole used tyres (other than bicycle tyres and tyres with an outside diameter of more than 1400mm), and
 - (d) they are not shredded used tyres, and
 - (e) they are not liquid waste (including waste waters but excluding sludge), and
 - (f) they are not chemical substances from research and development or teaching activities, for example laboratory residues, which are unidentified and/or which are new and whose effects on man and/or the environment are unknown, and
 - (g) all the relevant waste acceptance procedures have been completed, and
 - (h) they fulfil the relevant waste acceptance criteria, and
 - (i) they have not been diluted or mixed solely to meet the relevant waste acceptance criteria, and

- (j) they are wastes which have been treated, except for: inert wastes for which treatment is not technically feasible; or it is waste other than inert waste and treatment would not reduce its quantity or the hazards which it poses to human health or the environment, and
- (k) any code beginning with 07 05 and 16 03 shall exclude waste medicinal products and pharmaceutically active waste materials arising from their manufacture.

2.8.5 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.

2.8.6 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.

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

2.8.8 The total quantity of waste that shall be deposited in the landfill shall be limited by the pre-settlement levels shown on drawing reference 340_FRC_0708.

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

2.8.10 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.

2.9 Leachate levels

2.9.1 The limits for the level of leachate listed in schedule 4 table S4.1 shall not be exceeded.

2.10 Closure, aftercare and decommissioning

2.10.1 The operator shall maintain and operate the activities so as to prevent or where that is not practicable, to minimise, any pollution risk on closure and decommissioning.

2.10.2 The operator shall maintain a site closure plan which demonstrates how the activities can be decommissioned to avoid any pollution risk and return the site of operation to a satisfactory state.

2.10.3 The operator shall carry out and record a review of the site closure plan at least every 4 years.

2.10.4 The site closure plan (or relevant part thereof) shall be implemented on final cessation or decommissioning of the activities or part thereof.

2.11 Site protection and monitoring programme

- 2.11.1 The operator shall, within 6 months of the issue of this variation submit a Site Protection and Monitoring Programme.
- 2.11.2 The operator shall implement and maintain the Site Protection and Monitoring Programme in relation to all areas which will not comprise permanent deposits of waste and shall carry out and record a review of it at least every 4 years commencing from the date the Site Protection and Monitoring Programme was received.

3. Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 4 tables S4.2 and S4.3.
- 3.1.2 The limits given in that schedule shall not be exceeded, save that compliance with an emission limit shall include incorporation of the uncertainty allowance stated in Agency guidance LFTGN 05 and LFTGN 08.

3.2 Emissions to groundwater

- 3.2.1 There shall be no emission from the activities into groundwater of any substance in List I (as defined by the Groundwater Regulations) contrary to those regulations
- 3.2.2 There shall be no emission from the activities into groundwater of any substance in List II (as defined in the Groundwater Regulations) so as to cause pollution (as defined in those regulations).
- 3.2.3 The trigger levels for emissions into groundwater for the parameter(s) and monitoring point(s) set out in schedule 4 table S4 4 shall not be exceeded.
- 3.2.4 The operator shall submit to the Agency a review of the Hydrogeological Risk Assessment:
- (a) between 9 and 6 months prior to the fourth anniversary of the granting of the permit, and
 - (b) between 9 and 6 months prior to every subsequent 4 years after the fourth anniversary of the granting of the permit.

3.3 Fugitive emissions of substances

- 3.3.1 Fugitive emissions of substances (excluding odour, noise and vibration) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.3.2 Litter or mud arising from the activities shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, have been used to prevent or where that is not practicable to minimise, the litter and mud.
- 3.3.3 Litter or mud arising from the activities shall be cleared from affected areas outside the site as soon as practicable.
- 3.3.4 All liquids, 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.
- 3.3.5 The limits for landfill gas arising from the installation set out in schedule 4, tables S4.5 and S4.6, shall not be exceeded.

3.4 Odour

- 3.4.1 Emissions from the activities shall be free from odour at levels likely to cause annoyance outside the site, as perceived by an authorised officer of the Agency, unless the operator has used appropriate measures, to prevent or where that is not practicable to minimise the odour.

3.5 Noise and vibration

- 3.5.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause annoyance outside the site, as perceived by an authorised officer of the Agency, unless the operator has used appropriate measures to prevent or where that is not practicable to minimise the noise and vibration.

3.6 Monitoring

- 3.6.1 The operator shall, unless otherwise agreed in writing by the Agency, undertake the monitoring specified in the following tables in schedule 4 to this permit:
- (a) Leachate specified in tables S4.1 and S4.8;
 - (b) Point source emissions specified in tables S4.2 and S4.3;
 - (c) Groundwater specified in tables S4.4 and S4.9;
 - (d) Landfill gas specified in tables S4.5, S4.6, S4.7 and S4.10.
- 3.6.2 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.
- 3.6.3 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.
- 3.6.4 Within 10 months of the issue of this variation (unless otherwise agreed in writing by the Agency) the site reference data identified in the Site Protection and Monitoring Programme shall be collected and submitted to the 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 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) the Site Protection and Monitoring Programme;
 - (iii) sub-surface landfill gas monitoring;
 - (iv) leachate levels, quality and quantities;
 - (v) landfill gas generation and collection;
 - (vi) waste types and quantities;
 - (vii) the location of hazardous waste deposits; and
 - (viii) the specification and as built drawings of the basal, sidewall and capping engineering systems.

4.1.2 Any records required to be made by this permit shall be supplied to the Agency within 14 days where the records have been requested in writing by the Agency.

4.1.3 All records required to be held by this permit shall be available for inspection by the Agency at any reasonable time.

4.2 Reporting

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

- (a) a review of the results of the monitoring and assessment carried out in accordance with this permit against the relevant assumptions, parameters and results in the risk assessments submitted with the application;
- (b) where the operator's management system encompasses annual improvement targets, a summary report of the previous year's progress against such targets;
- (c) the energy consumed at the site, reported in the format set out in schedule 5 table S5.3;
- (d) the annual production/treatment set out in schedule 5 table S5.2;
- (e) details of any contamination or decontamination of the site which has occurred;

- (f) the topographical surveys required by condition 3.6.3 other than those submitted as part of a CQA validation report;
- (g) 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;
- (h) 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;
- (i) a calculation of the remaining capacity (reported in cubic metres) derived from the pre-settlement contours and the most recent topographical survey.

4.2.2 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the 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 5 table S5.1;
- (b) for the reporting periods specified in schedule 5 table S5.1 and using the forms specified in schedule 5 table S5.4; and
- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.2.3 A summary report of the waste types and quantities accepted and removed from the site shall be made for each quarter. It shall be submitted to the Agency within one month of the end of the quarter and shall be in the format required by the Agency.

4.2.4 The operator shall, unless notice under this condition has been served within the preceding 4 years, submit to the Agency, within 6 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.

4.2.5 All reports and notifications required by the permit shall be sent to the Agency using the contact details supplied in writing by the Agency.

4.2.6 The results of reviews and any changes made to the Site Protection and Monitoring Programme shall be reported to the Agency, within 1 month of the review or change.

4.3 Notifications

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

- (a) any malfunction, breakdown or failure of equipment or techniques, accident, or fugitive emission which has caused, is causing or may cause significant pollution;
- (b) the breach of a limit specified in the permit;
- (c) any significant adverse environmental effects.

4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 6 to this permit within the time period specified in that schedule.

4.3.3 Prior written notification shall be given to the Agency of the following events and in the specified timescales:

- (a) as soon as practicable prior to the permanent cessation of any of the permitted activities;
 - (b) as soon as practicable prior to the cessation of the landfill disposal activities, for a period likely to exceed 1 month; and
 - (c) at least 7 days prior to the resumption of the landfill disposal activities after a cessation notified under (b) above.
- 4.3.4 The Agency shall be given at least 14 days notice before implementation of any part of the site closure plan in respect of any activities other than the disposal of waste in the landfill.
- 4.3.5 Where the Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Agency when the relevant monitoring is to take place. The operator shall provide this information to the Agency at least 14 days before the date the monitoring is to be undertaken.
- 4.3.6 The Agency shall be notified within 7 days of any changes in technically competent management and the name of any incoming person together with evidence that such person has the required technical competence.
- 4.3.7 The Agency shall be provided, within 14 days of the operator or any relevant person being convicted of a relevant offence, (unless such information has already been notified to the Agency), with details of the nature of the offence, the place and date of conviction, and the sentence imposed.
- 4.3.8 The Agency shall be notified within 14 days of the operator and/or any relevant person lodging an appeal against a conviction for any relevant offence and of the outcome when the appeal is decided.
- 4.3.9 The Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:
- (a) any change in the operator's trading name, registered name or registered office address;
 - (b) any change to particulars of the operator's ultimate holding company (including details of an ultimate holding company where an operator has become a subsidiary); and
 - (c) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

4.4 Interpretation

- 4.4.1 In this permit the expressions listed in schedule 7 shall have the meaning given in that schedule.

Schedule 1 - Operations

Table S1.1 Activities

Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
Section 5.2 Part A(1) (a) , The disposal of waste in a landfill.	Landfill for non-hazardous waste (landfill classification under the Landfill Directive 1999)	Non-hazardous and inert wastes consisting of the types and quantities specified in conditions 2.8, as an integral part of landfilling.
Directly Associated Activity		
Leachate management	Treatment of leachate pre-discharge in a facility with a capacity of <50 tonnes/day	Leachate arising from the landfill.
Leachate management	Storage of leachate in a tank pending treatment or recirculation	Leachate arising from the landfill
Landfill gas flaring	Flaring of landfill gas for disposal in an appliance.	Landfill gas arising from the landfill.
Water discharges to controlled waters	Discharges of site drainage and abstracted groundwater.	From surface water management system to point of entry to controlled waters.
Fuel and oil storage	Storage of fuel and oil for the operation of plant and equipment.	From the fuel and/or oil storage tank or bowser to the point of discharge.

Table S1.2 Operating techniques

Description	Parts	Date Received
Application	The response to questions 1.2, 2.1, 2.2, 2.3, 2.4 and 2.5 in Part B of the Application	20/05/2003
Scheme for the installation of perimeter gas boreholes in response to permit conditions 2.2.7.6 and 2.2.7.7	All	28/06/2004
Odour Monitoring and Management Plan Submitted in response to former improvement programme reference 1.	All	27/07/2004
Landfill Gas Management Plan for Hyde Farm Submitted in response to permit condition 2.2.4.5.	All	03/08/2004
Trace Gas Report reference 4A-156-025 Submitted in response to permit condition 2.2.4.3	All	25/04/2005
Flare emissions report reference 4A-156-027	All	April 2005
Aerial emissions monitoring proposals in response to permit condition 2.2.4.2	All	25/04/2005
Surface Water Monitoring Programme Submitted in response to former improvement programme reference 2a.	All	25/04/2005 and 18/07/2006
Surface Water Action Plan Submitted in response to former permit improvement programme reference 2d.	All	25/04/2005 and 18/07/2006
Routine Monitoring Programme Submitted in response to former permit improvement programme reference 2c.	All	25/04/2005 and 18/07/2006

Table S1.2 Operating techniques

Description	Parts	Date Received
Flux box survey report Submitted in response to permit condition 2.2.4.6	All	29/06/2006
Revised drawing reference GX_10, revision 10 showing the monitoring point locations	All	16/07/2008
Revised installation drawing reference 340_BDRY_0708	All	16/07/2008

Table S1.3 Improvement programme requirements

Reference	Requirement	Date
1	The operator shall submit a Landfill Gas Risk Assessment for the whole site in writing to the Agency for approval.	31/12/2008
2	The operator shall review the landfill gas monitoring data for all perimeter gas monitoring boreholes referenced "WW" in order to determine background concentrations of carbon dioxide and methane and the operator shall propose trigger levels for carbon dioxide and methane for all these perimeter gas monitoring boreholes. The operator shall submit a report of the review together with the proposed trigger levels to the Agency in writing for approval.	30/09/2008

Table S1.4 Pre-operational measures for future development

Reference	Operation	Pre-operational Measures
1	Side slope construction	The operator shall ensure that groundwater from the side slope of Hyde Farm Landfill is collected to ensure that no head of groundwater is maintained beneath the side wall liner.
2	Side wall construction	The operator shall ensure that all geomembranes used within the side wall liner will have interface shear strength values with the underlying compacted clay to ensure that the slope remains stable under confined and un-confined conditions.
3	Landfilling within each future phase of Hyde Farm landfill	At least 4 months prior to the commencement of landfilling within each future phase of Hyde Farm landfill which has a boundary with natural materials or non-waste made ground the operator shall install perimeter landfill gas monitoring boreholes in the external boundary of that phase. The boreholes shall be installed at a minimum of 50 metre centres with the exception of the boundary in the vicinity of Hyde Farm buildings as shown on drawing reference GX_9 revision 9 where the boreholes shall be installed at 20 metre centres.

Table S1.5 Annual waste input limits

Category	Limit Tonnes/ Year
Non-hazardous waste (including inert waste)	900,000

Schedule 2 - Site plan



Extract from drawing reference 340_BDRY_0708. Not to scale.

Reproduced from the Ordnance Survey map with the permission of the Controller of Her Majesty's Stationery Office ©Crown Copyright 2000. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings.

Schedule 3 - List of permitted wastes

Table S3.1 Permitted Wastes

Waste Code	Description
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	baryte-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 01	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
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 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 02	wastes from preserving agents
02 03 03	wastes from solvent extraction
02 03 04	materials unsuitable for consumption or processing
02 04	wastes from sugar processing
02 04 01	soil from cleaning and washing beet
02 04 02	off-specification calcium carbonate
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 07	wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
02 07 03	wastes from chemical treatment
02 07 04	materials unsuitable for consumption or processing

Table S3.1 Permitted Wastes

Waste Code	Description
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 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
04 01	wastes from the leather and fur industry
04 01 02	liming waste
04 01 08	waste tanned leather (blue sheetings, shavings, cuttings, buffing dust) containing chromium
04 01 09	wastes from dressing and finishing
04 02	wastes from the textile industry
04 02 09	wastes from composite materials (impregnated textile, elastomer, plastomer)
04 02 10	organic matter from natural products (for example grease, wax)
04 02 15	wastes from finishing other than those mentioned in 04 02 14
04 02 17	dyestuffs and pigments other than those mentioned in 04 02 16
04 02 21	wastes from unprocessed textile fibres
04 02 22	wastes from processed textile fibres
05 01	wastes from petroleum refining
05 01 14	wastes from cooling columns
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 03	wastes from the MFSU of salts and their solutions and metallic oxides
06 03 14	solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13
06 03 16	metallic oxides other than those mentioned in 06 03 15
06 09	wastes from the MSFU of phosphorous chemicals and phosphorous chemical processes
06 09 02	phosphorous slag
06 11	wastes from the manufacture of inorganic pigments and opacifiers
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 02	wastes from the MFSU of plastics, synthetic rubber and man-made fibres
07 02 13	waste plastic
07 02 15	wastes from additives other than those mentioned in 07 02 14
07 05	wastes from the MFSU of pharmaceuticals excluding waste medicinal products and pharmaceutically active waste materials arising from their manufacture
07 05 14	solid wastes other than those mentioned in 07 05 13
08 02	wastes from MFSU of other coatings (including ceramic materials)
08 02 01	waste coating powders

Table S3.1 Permitted Wastes

Waste Code	Description
08 03	wastes from MFSU of printing inks
08 03 13	waste ink other than those mentioned in 08 03 12
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
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 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
10 01 19	wastes from gas cleaning other than those mentioned in 10 01 05, 10 01 07 and 10 01 18
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 end dust

Table S3.1 Permitted Wastes

Waste Code	Description
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
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

Table S3.1 Permitted Wastes

Waste Code	Description
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 10	solid wastes from gas treatment other than those mentioned in 10 12 09
10 12 12	wastes from glazing other than those mentioned in 10 12 11
10 13	wastes from manufacture of cement, lime and plaster and articles and products made from them
10 13 01	waste preparation mixture before thermal processing
10 13 04	wastes from calcination and hydration of lime
10 13 06	particulates and dust (except 10 13 12 and 10 13 13)
10 13 07	Sludges and filter cakes from gas treatment
10 13 10	wastes from asbestos-cement manufacture other than those mentioned in 10 13 09
10 13 11	wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10
10 13 13	solid wastes from gas treatment other than those mentioned in 10 13 12
10 13 14	waste concrete and concrete sludge
11 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 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 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 01	packaging (including separately collected municipal packaging waste)
15 01 01	paper and cardboard packaging
15 01 02	plastic packaging
15 01 03	wooden packaging

Table S3.1 Permitted Wastes

Waste Code	Description
15 01 04	metallic packaging
15 01 05	composite packaging
15 01 06	mixed packaging
15 01 07	glass packaging
15 01 09	textile packaging
15 02	absorbents, filter materials, wiping cloths and protective clothing
15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02
16 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 03	end of life tyres
16 01 12	brake pads other than those mentioned in 16 01 11
16 01 16	tanks for liquefied gas
16 01 17	ferrous metal
16 01 18	non-ferrous metal
16 01 19	plastic
16 01 20	glass
16 01 22	components not otherwise specified
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 excluding waste medicinal products and pharmaceutically active waste materials arising from their manufacture
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 05	gases in pressure containers and discarded chemicals
16 05 09	discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08
16 08	spent catalysts
16 08 01	spent catalysts containing gold, silver, rhenium, rhodium, palladium, indium or platinum (except 16 08 07)
16 08 03	spent catalysts containing transition metals or transition metal compounds not otherwise specified
16 08 04	spent fluid catalytic cracking catalysts (except 16 08 07)
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 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

Table S3.1 Permitted Wastes

Waste Code	Description
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
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 08	gypsum-based construction material
17 08 02	gypsum-based construction materials other than those mentioned in 17 08 01
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 01	wastes from natal care, diagnosis, treatment or prevention of disease in humans
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 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 10	combustible wastes other than those mentioned in 19 02 08 and 19 02 09
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
19 05	wastes from aerobic treatment of solid wastes
19 05 01	non-composted fraction of municipal and similar wastes

Table S3.1 Permitted Wastes

Waste Code	Description
19 05 02	non-composted fraction of animal and vegetable waste
19 05 03	off-specification compost
19 06	wastes from anaerobic treatment of waste
19 06 04	digestate from anaerobic treatment of municipal waste
19 06 06	digestate from anaerobic treatment of animal and vegetable waste
19 08	wastes from waste water treatment plants not otherwise specified
19 08 01	screenings
19 08 02	waste from desanding
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 04	spent activated carbon
19 09 05	saturated or spent ion exchange resins
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 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelleting) 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
20 01	separately collected fractions (except 15 01)
20 01 01	paper and cardboard
20 01 02	glass
20 01 08	biodegradable kitchen and canteen waste
20 01 10	clothes
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

Table S3.1 Permitted Wastes

Waste Code	Description
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 06	waste from sewage cleaning
20 03 07	bulky waste

Schedule 4 – Emissions and monitoring

Table S4.1 Leachate level limits and monitoring requirements

Monitoring point reference/ Description	Limit	Monitoring frequency	Monitoring method
Hyde Farm – as shown on drawing reference GX_10 revision 10	1 m above cell base	Monthly	Electric dip meter
Wapseys Wood Contained Cells - as shown on drawing reference GX_10 revision 10	2 m above cell base	Monthly	Electric dip meter

Table S4.2 Point source emissions to air – emission limits and monitoring requirements

Emission point Ref. & Location	Parameter	Source	Limit (including unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
LFG Flare 1 (NGR SU95088900)	Oxides of Nitrogen	Landfill Gas Flares	150 mg/m ³	Hourly mean	Annually	Chemiluminescence
LFG Flare 2 (NGR SU96808900)	CO		50 mg/m ³			Non-dispersive infra red analysis
LFG Flare 3 (NGR SU96648940)	Total VOCs		10 mg/m ³			Extractive sampling and FID analysis
	NMVOCs		5 mg/m ³			Extractive sampling onto sorbent, extraction by CS ₂ , analysis by GC with appropriate detector

Table S4.3 Point source emissions to water (other than sewer) – emission limits and monitoring requirements

Emission point Ref. & Location	Parameter	Source	Limit (including unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
GXSWO0BH, GXSWO0LP, GXSWO0M40, GXSWO0GB, GXSWHGCP, GXSWO0FP Future surface water monitoring locations GXSWO0A40, GXSWO0OB as shown on drawing reference GX_10 revision 10	Ammoniacal Nitrogen	Surface water drainage collection system	6.46 mg/l	Spot Sample	Monthly	In accordance with Agency guidance LTFGN02
	Suspended Solids		23 mg/l			
	pH		6-9			
	Oil and Grease		6.4 mg/l			

Table S4.3 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
GXSWOOBH, GXSWOOLP, GXSWOGB, GXSWOFP Future surface water monitoring locations GXSWOA40, GXSWOOB as shown on drawing reference GX_10 revision 10	chloride	Surface water drainage collection system	53.11 mg/l	Spot Sample	Monthly	In accordance with Agency guidance LTFGN02
GXSW00M40			75.9 mg/l			
GXSWHGCP			63.25 mg/l			

Table S4.4 Trigger levels for emissions into groundwater and monitoring requirements

Monitoring point reference	Parameter	Limit (including unit)	Reference Period	Monitoring frequency	Monitoring standard or method
HF2, HFAGW2A as shown on drawing reference GX_10 revision 10	Ammonium	0.5 mg/l	Spot Sample	Monthly	In accordance with Agency guidance LTFGN02
	Cadmium	5 µg/l			
	Chloride	250 mg/l			
HF4A as shown on drawing reference GX_10 revision 10	Ammonium	0.5 mg/l	Spot Sample	Monthly, at least 12 months prior to commencement of landfilling within Cell 4A	In accordance with Agency guidance LTFGN02
	Cadmium	5 µg/l			
	Chloride	250 mg/l			

Table S4.5 Landfill gas in external monitoring boreholes – limits and monitoring requirements

Monitoring point Ref. /description	Parameter	Limit (including units)	Monitoring frequency	Monitoring standard or method
HFG1 - HFG13 as shown on drawing reference GX_10 revision 10	Methane	1% v/v*	Monthly	In accordance with "Guidance on the management of landfill gas", Environment Agency, September 2004.
	Carbon dioxide	1.5% v/v*		
	Oxygen,	No limit		
	Atmospheric Pressure, Differential Pressure, Meteorological data			

Table S4.5 Landfill gas in external monitoring boreholes – limits and monitoring requirements

Monitoring point Ref. /description	Parameter	Limit (including units)	Monitoring frequency	Monitoring standard or method
WW01 - WW8, WW13 - WW28 and WW39 - WW41 and WWG42C00, WWG42B00, WWG42A00, WWG42000, WWG43A00, WWG43000, WWG44A00, WWG44000, WWG45A00, WWG45000, WWG46A00, WWG46000, WWG47A00, WWG47000, WWG48A00, WWG48000, WWG20A00, WWG20000, WWG19000, WWG20AA-AC, WWG20BA-BC, WWG20CA-CC, WWG42AA-AC, WWG43-AC, WWG44AA-AC as shown on drawing reference GX_10 revision 10	Methane	1% v/v above background**	Monthly	In accordance with "Guidance on the management of landfill gas", Environment Agency, September 2004.
	Carbon Dioxide	1.5% v/v above background**		
	Oxygen,	No limit		
	Atmospheric Pressure, Differential Pressure, Meteorological data			

* - The limits specified take account of the agreed background concentrations in the application.

** - Trigger levels are as agreed in accordance with the requirements of table S1.3 reference 2.

Table S4.6 Landfill gas from capped surfaces - monitoring requirements

Monitoring point Ref. /description	Parameter	Monitoring frequency	Other specifications	Monitoring Standard or method
Permanently capped areas	Average Methane flux	Annually	Where a rate of 0.001 mg/m ² /second is exceeded appropriate measures must be taken to reduce the rate.	As per LFTGN07 or as otherwise agreed in writing by the Agency*
Temporarily capped areas	Average Methane flux	Annually	Where a rate of 0.1 mg/m ² /second is exceeded appropriate measures must be taken to reduce the rate.	As per LFTGN07 or as otherwise agreed in writing by the Agency*

Footnote * If a cap has previously been shown compliant and there have been no significant physical changes in the gas management during the year, a detailed walkover survey can be used to demonstrate that the surface emissions are under control. If this survey shows no change in the pattern of methane emission, it may be used as the annual survey and the values for average methane flux and total methane emissions measured in the previous year may be reported. A quantitative survey is not necessary. If the zone remains stable, the results of a detailed walkover survey will be acceptable for the annual report for a period of four years before a further quantitative survey is required.

Table S4.7 Landfill gas – other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
All in-waste gas monitoring wells All in-waste collection wells	Oxygen	Monthly	Portable Infra-Red Analyser	Where the Oxygen level exceeds 5% an assessment of air ingress into the system shall be undertaken as requested by the Agency
Representative sample	Trace gas analysis in accordance with LFTGN04	Annually	In accordance with LFTGN04 Guidance for monitoring trace gas components in landfill gas, Environment Agency, September 2004.	The concentration of trace gas components shall be assessed against the assumptions made in the Landfill gas risk assessment.

Table S4.8 Leachate– other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Leachate extraction wells (Sump from which leachate is removed from phase) as shown on drawing reference GX_10 revision 10	Leachate level, pH, EC and temperature.	Monthly	In accordance with Appendix 6 of the Agency's guidance document LFTGN01.	None
	Cl, NH ₄ -N, SO ₄ , Alk, COD, TON, TOC, BOD, Na, K, Ca and Mg.	Quarterly		
	Fe, Mn, Cd, Cr, Cu, Ni, Pb, Zn, Oil and Phenol	Annually		
	List I screen			

Table S4.9 Groundwater – other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
All groundwater monitoring boreholes as shown on drawing reference GX_10 revision 10 (excluding borehole WWGWK2)	Water level, monitoring point base, DO, pH, EC, NH ₄ -N, Cl and temperature	Monthly	In accordance with Appendix 6 of the Agency's guidance document LFTGN01.	None
All groundwater monitoring boreholes as shown on drawing reference GX_10 revision 10 (excluding borehole WWGWK2)	As monthly including; TON(oxidised-N), TOC, Ca, Mg, Na, K, Alk, SO ₄ , Fe, Mn, Cd, Cr, Cu, Ni, Pb, Zn and Ionic Balance.	Quarterly		

Table S4.9 Groundwater – other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
All groundwater monitoring boreholes as shown on drawing reference GX_10 revision 10 (excluding borehole WWGWK2)	Any List 1 substance found above MRV screening limits on the most recent three annual List 1 screening occasions required by Table S4.8 above.	Annually		

Table S4.10 Landfill gas in ambient air – limits and monitoring requirements

Monitoring point reference/description	Parameter	Limit (including unit) *	Reference Period	Monitoring Frequency	Monitoring Standard or Method
"Perimeter SEM route" as shown on drawing reference GX_10 revision 10	Trace Flammable Gases	50ppm	spot sample	Monthly or as otherwise agreed with the Agency	Flame Ionisation Detector (FID)

* The limits specified take account of the agreed background concentrations as detailed in the Gas Management Plan.

Schedule 5 - Reporting

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

Table S5.1 Reporting of monitoring data

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Leachate levels as required by condition 3.6.1	Hyde Farm – as shown on drawing reference GX_10 revision 10 Wapseys Wood Contained Cells - as shown on drawing reference GX_10 revision 10	Quarterly	05/02/2004
Emissions to air Parameters as required by condition 3.6.1	LFG Flare 1, LFG Flare 2, LFG Flare 3.	Annually	05/02/2004
Emissions to water Parameters as required by condition 3.6.1	GXSWOOBH, GXSWOOLP, GXSWOM40, GXSWOOGB, GXSWGCP, GXSWOOPF; Future surface water monitoring locations GXSWOA40, GXSWOOB	Quarterly	05/02/2004 From date of installation
Groundwater Parameters as required by condition 3.6.1	All groundwater monitoring boreholes as shown on drawing reference GX_10 revision 10 (excluding borehole WWGWK2)	Quarterly	05/02/2004
Ambient air monitoring Parameters as required by condition 3.6.1	"Perimeter SEM route" as shown on drawing reference GX_10 revision 10	Quarterly	05/02/2004
Landfill gas surface emissions Parameters as required by condition 3.6.1	Permanently capped areas Temporarily capped areas	Quarterly for monthly parameters, annually for annual parameters	05/02/2004
Landfill gas lateral migration Parameters as required by condition 3.6.1	HFG1 - HFG13, WW01 - WW8, WW13 - WW28 and WW39 - WW41 and WWG42C00, WWG42B00, WWG42A00, WWG42000, WWG43A00, WWG43000, WWG44A00, WWG44000, WWG45A00, WWG45000, WWG46A00, WWG46000, WWG47A00, WWG47000, WWG48A00, WWG48000, WWG20A00, WWG20000, WWG19000, WWG20AA-AC, WWG20BA-BC, WWG20CA-CC, WWG42AA-AC, WWG43-AC, WWG44AA-AC as shown on drawing reference GX_10 revision 10	Monthly	05/02/2004
Other landfill gas monitoring Parameters as required by condition 3.6.1	All in-waste gas monitoring wells All in-waste collection wells Input to LFG utilisation compound	Quarterly Annually	05/02/2004

Table S5.1 Reporting of monitoring data

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Other leachate monitoring Parameters as required by condition 3.6.1	Leachate extraction wells (Sump from which leachate is removed from phase) as shown on drawing reference GX_10 revision 10	Quarterly	05/02/2004
List 1 screen	Leachate extraction wells	Annually	
Other groundwater monitoring Parameters as required by condition 3.6.1	All groundwater monitoring boreholes as shown on drawing reference GX_10 revision 10	Annually	05/02/2004

Table S5.2: Annual production/treatment

Leachate: Disposed of off site; Disposed of to any onsite effluent treatment plant; Recirculated into the waste mass.	Cubic metres/year
Surface water and/ or groundwater: Disposed of off site; Disposed of to any onsite effluent treatment plant.	Cubic metres/year
Landfill gas: combustion in flares; combustion in gas engines; Other methods of gas utilisation.	Normalised cubic metres/year

Table S5.3 Performance Parameters

Parameter	Frequency of assessment	Annual total	Unit
Energy used (including for leachate treatment)	Annually		MWh of electricity

Table S5.4 Reporting Forms

Media/parameter	Reporting Format	Date of Form
Leachate	Form Leachate 1 or other reporting format to be agreed in writing with the Agency	25/09/2008
Air	Form Air 1 or other reporting format to be agreed in writing with the Agency	25/09/2008
Controlled water	Form Water 1 or other reporting format to be agreed in writing with the Agency	25/09/2008
Groundwater	Form Groundwater 1 or other reporting format to be agreed in writing with the Agency	25/09/2008
Landfill gas	Form LFG 1 or other reporting format to be agreed in writing with the Agency	25/09/2008
Waste Return	RATS2E	
Landfill topographical surveys and interpretation	Reporting format to be agreed in writing with the Agency	

Schedule 6 - 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 Installation	
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or fugitive emission 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 installation in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of Veolia ES (UK) Limited

Schedule 7 - 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 4 to the PPC Regulations

"*Authorised Officer*" means any person authorised by the 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.

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

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

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

"*EP Regulations*" means The Environmental Permitting (England and Wales) Regulations SI 2007 No.3538 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

"*Fugitive emission*" means an emission to air, water or land from the activities which is not controlled by an emission or background concentration limit.

"*Groundwater Regulations*" means the Groundwater Regulations SI 1998 No 2746, and words and expressions used in this permit which are also used in the Regulations shall have the same meanings as in those Regulations.

"*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;

within the site.

"*Land Protection Guidance*" means Agency guidance "H7 - Guidance on the protection of land under the PPC Regime: Application site report and site protection monitoring programme".

"*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, September 2004.

"*LFTGN 08*" means Environment Agency Guidance for monitoring landfill gas engines, September 2004.

"*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.

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

- groundwater under-drainage system;
- permanent geophysical leak location system;

- leak detection layer;
- sub-grade;
- barriers;
- liners;
- leachate collection system;
- leachate abstraction system;
- separation bund/layer;
- cell or area surface water drainage system;
- side wall subgrade and containment systems;

for the New Cell.

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

"notify without delay" and "notified without delay" means that a telephone call can be used, whereas all other reports and notifications must be supplied in writing, either electronically or on paper.

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

"Relevant person" and "relevant conviction" shall have the meanings given to them in the Environmental Protection Act 1990

"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 Groundwater 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 Groundwater Regulations

"Site Protection and Monitoring Programme" means a document which meets the requirements for Site Protection and Monitoring Programmes described in the Land Protection Guidance.

"Technically competent management" and "technical competence" shall have the meanings given to them in the Environmental Protection Act 1990.

"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, List of Wastes (Northern Ireland) Regulations 2005 (as amended), or The Special Waste Amendment (Scotland) Regulations 2004 as appropriate, and in relation to hazardous waste, includes the asterisk

"Year" means calendar year ending 31 December.

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.

END OF PERMIT

Permit Number: BU3086 Operator: Veolia ES (UK) Ltd
 Installation: Gerrards Cross Landfill Form Number: LFG1 / 25/09/2008

Reporting of landfill gas monitoring for the period from to

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 Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. 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: BU3086

Operator: Veolia ES (UK) Ltd

Installation: Gerrards Cross Landfill

Form Number: Groundwater1 / 25/09/2008

Reporting of groundwater monitoring for the period from _____ **to** _____

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

- [5] 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.
- [6] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. gas chromatography.
- [7] 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.
- [8] 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: BU3086 Operator: Veolia ES (UK) Ltd
 Installation: Gerrards Cross Landfill Form Number: Leachate 1 / 25/09/2008

Reporting of leachate monitoring for the period from to

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

[9] 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.
 [10] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. gas chromatography.
 [11] 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.
 [12] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed Date.....
 (Authorised to sign as representative of Operator)