

# Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

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Biffa Waste Services Limited

Westmill Waste Management Facility  
Westmill Road  
Ware  
Hertfordshire  
SG12 0ES

Variation application number  
EPR/DP3431PC/V005

Permit number  
EPR/DP3431PC

# Westmill Waste Management Facility

## Permit number EPR/DP3431PC

### Introductory note

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

Under the Environmental Permitting (England & Wales) Regulations 2010 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. Only the variations specified in schedule 1 are subject to a right of appeal. All the conditions of the permit have been varied and are subject to the right of appeal.

This variation and consolidation amends the permit to:

- Amend condition 2.7.7 and 2.7.8 to refer to revised pre-settlement and post settlement drawings.
- Amend Table S1.2 to update operating techniques and refer to revised cell layout drawings for cells 6 and 7 in order to split them into new cells 6N, 6S, 7N and 7S.
- Amend permitted wastes table S2.1 to include European Waste Catalogue (EWC) codes 18 01 04, 18 02 03 and 20 01 99
- Amend the wastes table S2.1 to highlight waste consider to be low odour wastes.
- Amend the leachate levels limit stated in table S3.1 to increase to limits to 2 meters above the base in Westmill 2 area of the landfill for cells which have the appropriate infrastructure in place to prevent overspill.
- Update the leachate monitoring point references in table S3.1
- Include pre operational conditions 9, 10 and 11 to complete prior to implementation of the proposals above.
- Include improvement condition 14 to provide a consolidate site management plan.
- Amend table S3.6 to correct error in reference to improvement conditions. IC10 has been changed to IC9.
- Update monitoring point references in Tables S3.1 – S3.11 and S4.1 in line with latest site monitoring plan.

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

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Application BK1988ID (Reference EPR/BK1988ID/A001)	Duly made 15/01/01	
Response to request for information 01	18/07/01	
Response to request for information 02	03/12/01	
Response to request for information 03	03/12/01	
Response to request for information 04	25/03/02	
Permit determined BK1988ID	07/04/03	
Permit transferred to Biffa Waste Services Ltd DP3431PC	26/05/04	Permit transferred to Biffa Waste Services Ltd (formerly permit reference BK1988ID)
Environment Agency Variation EA/EPR/DP3431PC/V002 (PP3333KY)	08/04/09	
Agency initiated variation EPR/DP3431PC/V003	18/03/10	
EPR/DP3431PC/V003 Determined (MP3835TW)	23/07/10	
Application EPR/DP3431PC/V004 Consolidation and substantial Variation	19/04/09	Consolidation of EPR/DP3431PC and EPR/GP3991NU
Additional Information Received	21/01/10	
Additional information Received	03/06/10	Odour Management Plan
Additional Information	05/06/10	Response to Schedule 5 Notice
Additional Information	30/07/10	Response to Schedule 5 Notice
Variation determined Consolidated permit number EPR/DP3431PC/V004 (VP3833KZ)	25/02/11	
Application EPR/DP3431PC/V005	Duly made 10/05/12	Application to vary the permit to amend settlement profiles, increase leachate levels and add additional waste codes.
Additional information EPR/DP3431PC/V005	31/07/12	Response to Schedule 5 Notice
Application EPR/DP3431PC/V006	Duly made 10/09/12	Application to vary the permit to include the Soil Treatment Facility to process wastes for use on the landfill.

Additional information response to Schedule 5 Notice EPR/DP3431PC/V006	22/10/12	Insertion of waste code 19 13 02. Confirmed amount of green waste accepted and stored at the site for use in biopiles process. Confirmed dust suppressions methods.
Additional information EPR/DP3431PC/V005	25/10/12	Revised drawing ESID 2. Inert restoration profiles.
Variation Application EPR/DP3431PC/V007	Duly made 25/10/12	Variation to add an additional landfill gas engine, note this variation has been issued before V005 and V006
Additional information EPR/DP3431PC/V005	06/11/12	Revised Odour Impact Assessment.
Additional information EPR/DP3431PC/V006	20/11/12	Impermeable surface engineering.
Additional information response to Schedule 5 Notice EPR/DP3431PC/V005	28/11/12	Leachate levels and infrastructure
Additional information EPR/DP3431PC/V006	30/11/12	Confirmation of insertion of pre operation condition for testing and characterising of wastes for use as daily cover. Confirmation of soil deposit site specific risk assessment pre- operational condition.
Variation determined EPR/DP3431PC/V007 (TP3539ZK)	18/04/13	Varied permit issued. EPR/DP3431PC/V007
Additional information EPR/DP3431PC/V006	03/02/14	Confirmed specific soil treatment facility acceptance criteria for waste codes 19 03 06*, 19 03 07. Confirmed removal of waste codes 19 02 06, 19 03 05, 19 02 05*, 19 03 04*.
Additional information EPR/DP3431PC/V005	07/02/14	Confirmation of odour modelling A! and A1 and A3 scenario implementation Confirmation of settlement profile settlement management.
Additional information EPR/DP3431PC/V005	08/04/14	Confirmation of municipal waste streams considered low odour
Variation determined EPR/DP3431PC (HP3237CF)	02/07/14	Varied permit issued. EPR/DP3431PC/V006
Application EPR/DP3431PC/V008	Duly made 15/09/14	Variation to add 2 additional landfill gas engines and a pre-treatment system for landfill gas.
Agency variation EPR/DP3431PC/V009 (Billing REF: MP3334WK)	17/11/14	Agency variation to fix an error to the 'limits of specified activity' set in Table S1.1 for leachate.
Variation determined EPR/DP3431PC/V008 (Billing ref: PP3330WL)	17/11/14	Varied permit issued

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Variation determined EPR/DP3431PC/V005 (Billing Ref: XP3734CG)	24/11/14	Varied permit issued. EPR/DP3431PC/V005
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End of introductory note

# Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2010

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

**Permit number**  
**EPR/DP3431PC**

**issued to**  
**Biffa Waste Services Limited** (“the operator”)

whose registered office is

**Coronation Road**  
**Cressex Business Park**  
**Cressex**  
**High Wycombe**  
**Buckinghamshire**  
**HP12 3TZ**

company registration number **00946107**

to operate a regulated facility at

**Westmill Waste Management Facility**  
**Westmill Road**  
**Ware**  
**Hertfordshire**  
**SG12 0ES**

to the extent set out in the schedules.

The notice shall take effect from 24/11/2014

Name	Date
<b>Thomas Ruffell</b>	<b>24/11/2014</b>

Authorised on behalf of the Environment Agency

## **Schedule 1**

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

- Condition 2.7.7, 2.7.8
- Table S1.2 Operating techniques
- Table S1.3 Improvement conditions
- Table S1.4B Pre operational measures
- Table S2.1 Permitted waste types
- Table S3.1 Leachate level limits and monitoring requirements
- Tables S3.1 – S3.11 and S4.1 update of monitoring point references

## **Schedule 2 – consolidated permit**

Consolidated permit issued as a separate document.

# Permit

The Environmental Permitting (England and Wales) Regulations 2010

**Permit number**  
**EPR/DP3431PC**

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/DP3431PC/V005 authorising,

**Biffa Waste Services Limited** (“the operator”),

whose registered office is

**Coronation Road**  
**Cressex Business Park**  
**Cressex**  
**High Wycombe**  
**Buckinghamshire**  
**HP12 3TZ**

company registration number **00946107**

to operate an installation at

**Westmill Waste Management Facility**  
**Westmill Road**  
**Ware**  
**Hertfordshire**  
**SG12 0ES**

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

Name	Date
<b>Thomas Ruffell</b>	<b>24/11/2014</b>

Authorised on behalf of the Environment Agency



# Conditions

## 1 Management

### 1.1 General management

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

### 1.2 Finance

- 1.2.1 The financial provision for meeting the obligations under this permit set out in the agreement made between the operator and the Agency dated 26/05/2004 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 Environment Agency.
- 1.2.2 The operator shall ensure that the charges it makes for the disposal of waste in the landfill cover all of the following:
- (a) the costs of setting up and operating the landfill;
  - (b) the costs of the financial provision required by condition 1.2.1; and
  - (c) the estimated costs for the closure and aftercare of the landfill.

### 1.3 Energy efficiency

- 1.3.1 For the following activities referenced in schedule 1, table S1.1 A1 to A11, the operator shall:
- (a) take appropriate measures to ensure that energy is used efficiently in the activities;
  - (b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
  - (c) take any further appropriate measures identified by a review.

## **1.4 Efficient use of raw materials**

- 1.4.1 For the following activities referenced in schedule 1, table S1.1 A3 to A6 the operator shall:
- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
  - (b) maintain records of raw materials and water used in the activities;
  - (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
  - (d) take any further appropriate measures identified by a review.

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

- 1.5.1 The operator shall take appropriate measures to ensure that:
- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
  - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
  - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.
- 1.5.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

# **2 Operations**

## **2.1 Permitted activities**

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the "activities").
- 2.1.2 For the following activities referenced in schedule 1, Table S1.1 A3 to A6, waste authorised by this permit shall be clearly distinguished from any other waste on the site.

## **2.2 The site**

- 2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 7 to this permit.
- 2.2.2 The activities A1 and A2 authorised under Table S1.1 shall not extend beyond the site, being the land shown edged in yellow on the site plan at schedule 7 to this permit.
- 2.2.3 The activities A16 and A17 authorised under Table S1.1 shall not extend beyond the site boundary being the land shown edged in blue on the site plan at schedule 7 to this permit

2.2.4 The activities A3 to A6 and A12 to A15 authorised under Table S1.1 shall not extend beyond the site, being the land shown edged in red on the site plan at schedule 7 to this permit.

## **2.3 Operating techniques**

- 2.3.1 (a) The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency
- (b) If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan specified in schedule 1, table S1.2 or otherwise required under this permit, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 Any raw materials or fuels listed in schedule 2 table S2.3 shall conform to the specifications set out in that table.
- 2.3.3 Waste shall only be accepted under activities A3 to A6 and A12 to A15 if:
- (a) it is of a type and quantity listed in schedule 2 tables S2.4, and S2.5 and
- (b) it conforms to the description in the documentation supplied by the producer and holder.
- 2.3.4 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
- (a) the nature of the process producing the waste;
- (b) the composition of the waste;
- (c) the handling requirements of the waste;
- (d) the hazardous property associated with the waste, if applicable; and
- (e) the waste code of the waste.
- 2.3.5 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

### **Hazardous waste storage and treatment**

- 2.3.6 Hazardous waste shall not be mixed, either with a different category of hazardous waste or with other waste, substances or materials, unless it is authorised by schedule 1 table S1.1 and appropriate measures are taken.

## **2.4 Improvement programme**

- 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.
- 2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

## **2.5 Pre-operational conditions**

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

## **2.6 Landfill Engineering**

- 2.6.1 No construction of any new cell of the landfill shall commence until the operator has submitted construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.
- 2.6.2 Where the operator proposes to construct any new cell other than the first cell, but proposes no change from the design of the most recently approved cell which could have any impact on the performance of any element of the design, no construction of the new cell shall commence until operator has submitted a cell layout drawing and the Environment Agency has confirmed that it is satisfied with the cell layout drawing.
- 2.6.3 The construction of a new cell shall take place only in accordance with the approved construction proposals unless:
- (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or
  - (b) a change has otherwise been agreed in writing by the Environment Agency.
- 2.6.4 No disposal of waste shall take place in a new cell until the operator has submitted a CQA Validation Report and the Environment Agency has confirmed that it is satisfied with the CQA Validation Report.
- 2.6.5 No construction of landfill infrastructure shall commence until the operator has submitted relevant construction proposals or a written request to use previous construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.
- 2.6.6 The construction of the landfill infrastructure shall take place only in accordance with the approved construction proposals unless:
- (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or
  - (b) a change has otherwise been agreed in writing by the Environment Agency.

- 2.6.7 The operator shall submit a CQA Validation Report as soon as practicable following the construction of the relevant landfill infrastructure.
- 2.6.8 Where pollution controls are immediately necessary to prevent an incident or accident, then conditions 2.6.5 and 2.6.6 do not apply and the relevant landfill infrastructure may be constructed, provided that the construction proposals are submitted to the Environment Agency as soon as practicable.
- 2.6.9 For the purposes of conditions 2.6.1, 2.6.2, 2.6.4 and 2.6.5, the Environment Agency shall be deemed to be satisfied where it has not, within the period of four weeks from the date of receipt of the relevant construction proposals or CQA Validation Report, either:
- (a) confirmed whether or not it is satisfied; or
  - (b) informed the operator that it requires further information.
- 2.6.10 Where the Environment Agency has required further information under condition 2.6.9(b), the Environment Agency shall be deemed to be satisfied where it has not, within the period of four weeks from the date of receipt of the further information, either:
- (a) confirmed whether or not it is satisfied; or
  - (b) informed the operator that it requires further information.
- 2.6.11 The operator shall prior to construction of the internal separation boundary between Westmill I and Westmill II, submit a written report, to the Environment Agency for written approval, on the assessment into the stability of the southern slope in Westmill I and how this can be maintained during and after the construction of the new internal separation boundary
- 2.6.12 The operator shall prior to starting construction of the internal separation boundary between Westmill I and Westmill II, submit a written report, to the Environment Agency for written approval detailing the design and engineering specifications to be applied to the temporary capping measure during the construction of the internal separation boundary referred to in condition 2.6.11 above

## **2.7 Waste acceptance**

- 2.7.1 No waste shall be accepted for disposal within the boundary edged in blue on the site plan in schedule 7 of this permit
- 2.7.2 Wastes shall only be accepted for restoration within the area edged in green on the site plan attached to schedule 7 of this permit if;
- a) they are listed in schedule 2, Table S2.2; and
  - b) they are inert waste or wastes received from the Soil Treatment Facility and satisfy the criteria for restoration; and
  - c) they are not liquid waste (including waste waters [but excluding sludge and excluding liquid waste accepted at a permitted leachate treatment activity]).
- 2.7.3 Wastes shall only be accepted for disposal if: within the area edged in yellow on the site plan attached to schedule 7 of this permit if:

- (a) they are listed in schedule 2, 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) where they are wastes with a code beginning with 07 05 and 16 03, they shall exclude waste medicinal products and pharmaceutically active waste materials arising from their manufacture.

2.7.4 The operator shall visually inspect:

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

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

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

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

2.7.7 The total quantity of waste that shall be deposited within the area edged in blue in schedule 7 of this permit, shall be limited by the pre-settlement levels shown on drawing Site Layout & Proposed Pre-Settlement Contours (ESID2) reference WK234301 (February 2012)

2.7.8 The total quantity of waste that shall be deposited within the area edged in yellow in schedule 7 of this permit, shall be limited by the pre-settlement levels shown on drawing Site Layout & Proposed Pre-Settlement Contours (ESID2) reference WK234301 (February 2012)

- 2.7.9 The quantity of waste that is deposited within the area edged in yellow in schedule 7 of this permit, shall not exceed the limits in schedule 1 table S1.5A.
- 2.7.10 The quantity of waste that is deposited within the area edged in blue in schedule 7 of this permit, shall not exceed the limits in schedule 1 table S1.5B.
- 2.7.11 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.

## **2.8 Leachate levels**

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

## **2.9 Closure and aftercare**

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

## **2.10 Landfill gas management**

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

## **2.11 Pests**

- 2.11.1 The activities shall not give rise to pollution or hazards from pests. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.

### **3 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 3 tables S3.2, S3.3 and S3.4.
- 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 Environment Agency guidance LFTGN 05 and LFTGN 08.
- 3.1.3 Where a substance is specified in schedule 3 tables S3.3 or S3.4 but no limit is set for it, the concentration of such substance in emissions to water from the relevant emission point shall be no greater than the background concentration.
- 3.1.4 There shall be no emission from the activities into groundwater of any hazardous substances contrary to the EP Regulations.
- 3.1.5 There shall be no emission from the activities into groundwater of any non-hazardous pollutants so as to cause pollution.
- 3.1.6 The trigger levels for emissions into groundwater for the parameter(s) and monitoring point(s) set out in schedule 3 table S3.5 shall not be exceeded.
- 3.1.7 The operator shall submit to the Environment Agency a review of the Hydrogeological Risk Assessment:
- (a) between nine and six months prior to the sixth anniversary of the granting of the permit, and
  - (b) between nine and six months prior to every subsequent six years after the sixth anniversary of the granting of the permit.
- 3.1.8 The limits for landfill gas arising from the installation set out in schedule 3, table S3.6 shall not be exceeded.
- 3.1.9 For the following activities referenced in schedule 1, Table S1.1 A3 to A6, periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

#### **3.2 Emissions of substances not controlled by emission limits**

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.



- 3.2.3 The operator shall
- a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan;
  - b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency

### **3.3 Odour**

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

### **3.4 Noise and vibration**

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

- 3.4.2 The operator shall:

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

### **3.5 Monitoring**

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring and any other actions specified in the following tables in schedule 3 to this permit:
- a) Leachate specified in table S3.1 and S3.9;
  - b) Point source emissions specified in table S3.2, S3.3 and S3.4;
  - c) Groundwater specified in table S3.5 and S3.11;
  - d) Landfill gas specified in tables S3.6, S3.7 and S3.8;
  - e) Surface water specified in table S3.10;
  - f) Process monitoring specified in Table S3.12; and
  - g) Soil biopile monitoring specified in Table S3.13.
- 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

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

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

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

## **4 Information**

### **4.1 Records**

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

- a) be legible;
- b) be made as soon as reasonably practicable;
- c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
- d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
  - (i) off-site environment effects; and
  - (ii) matter which affect the condition of the land and groundwater
  - (iii) the results of groundwater monitoring;
  - (iv) sub-surface landfill gas monitoring;
  - (v) leachate levels, quality and quantities;
  - (vi) landfill gas generation and collection;
  - (vii) waste types and quantities;
  - (viii) the specification and as built drawings of the basal, sidewall and capping engineering systems
  - (ix) off-site environment effects; and
  - (x) matters which affect the condition of the land and groundwater

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

### **4.2 Reporting**

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

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

- (a) a review of the results of the monitoring and assessment carried out in accordance with this permit against the relevant assumptions, parameters and results in the risk assessments submitted in relation to this installation and any agreed amendments there to;
- (b) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.
- (c) the annual production/treatment set out in schedule 4 table S4.2;
- (d) the topographical surveys required by condition 3.5.3 other than those submitted as part of a CQA validation report;
- (e) the volumetric difference (reported in cubic metres) between the most recent topographical survey and the previous annual topographical survey i.e. the additional volume of the landfill void that is occupied by waste;
- (f) an assessment of the settlement behavior of the landfill body based on the difference between the most recent topographical survey and previous annual topographical survey for the areas of the landfill which did not receive waste between the surveys;
- (g) a calculation of the remaining capacity (reported in cubic metres) derived from the pre-settlement contours and the most recent topographical survey;

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

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

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

4.2.5 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

### 4.3 Notifications

- 4.3.1 (a) In the event that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately:
- (i) inform the Environment Agency;
  - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident; and
  - (iii) take the measures necessary to prevent further possible incidents or accidents.
- (b) In the event of a breach of any permit condition the operator must immediately:
- (i) inform the Environment Agency; and
  - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time.
- (c) In the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.
- 4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:
- Where the operator is a registered company:
- (a) any change in the operator's trading name, registered name or registered office address; and
  - (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.
- Where the operator is a corporate body other than a registered company:
- (a) any change in the operator's name or address; and
  - (b) any steps taken with a view to the dissolution of the operator.
- In any other case:
- (a) the death of any of the named operators (where the operator consists of more than one named individual);
  - (b) any change in the operator's name(s) or address(es); and

- (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.
- 4.3.5 Where the operator proposes to make a change in the nature or functioning, or and extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the regulation or this permit:
- a) the Environment Agency shall be notified at least 14 days before making the change; and
  - b) the notification shall contain a description of the proposed change in operation
- 4.3.6 The Environment Agency shall be given at least 14 days notice before implementation of any part of the site closure plan.

## **4.4 Interpretation**

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.
- 4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made “without delay”, in which case it may be provided by telephone.
- 4.4.3 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:
- Where the operator is a registered company:
- (b) any change in the operator’s trading name, registered name or registered office address; and
  - (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.
- Where the operator is a corporate body other than a registered company:
- (a) any change in the operator’s name or address; and
  - (b) any steps taken with a view to the dissolution of the operator.
- 4.4.4 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:
- (a) the Environment Agency shall be notified at least 14 days before making the change; and
  - (b) the notification shall contain a description of the proposed change in operation.

# Schedule 1 – Operations

<b>Table S1.1 Activities</b>			
<b>Activity reference</b>	<b>Activity listed in Schedule 1 of the EP Regulations</b>	<b>Description of specified activity and WFD Annex I and II operations</b>	<b>Limits of specified activity and waste types</b>
A1	S5.2 A(1)(a): The disposal of waste in a landfill.	Landfill for non-hazardous waste (D5 – Specially engineered landfill)	Receipt, handling, storage and disposal of wastes, consisting of the types and quantities specified in conditions 2.7, as an integral part of landfilling.  Waste shall only be deposited within the area edged in yellow on the site plan in schedule 7 of this permit.
A2	S5.3 A(1)(a)(i): Leachate treatment.	Treatment of landfill and on-site soil treatment facility leachate in a facility with a capacity greater than 50 tonnes per day (D8 - biological treatment of waste)	Leachate arising from the landfill and from the onsite soil treatment facility.
A3	S5.3 A(1)(a)(vi): Recovery of hazardous waste with a capacity exceeding 10 tonnes per day.	Ex-situ bioremediation of hazardous waste soil.  R5: Recycling/reclamation of inorganic materials other than metals and metal compounds.	All treatment must take place on an impermeable surface with sealed drainage.  The biopile gas extraction system must be operational during treatment.  Hazardous wastes treated on site will only be used for recovery within the green boundary outlined in schedule 7 of the permit.  Waste soils only as per Table S2.4.
A4	S5.3 A(1)(a)(iii): Recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving blending or mixing.	Blending or mixing of hazardous waste soils.  R5: Recycling/reclamation of inorganic materials other than metals and metal compounds.	All treatment must take place on an impermeable surface with sealed drainage.  The blending and mixing of hazardous waste is only permitted provided it is in line with approved blending and mixing methodology as set out in pre-operational condition PO3 of table S1.4.  Waste only as per tables 2.4.

**Table S1.1 Activities**

<b>Activity reference</b>	<b>Activity listed in Schedule 1 of the EP Regulations</b>	<b>Description of specified activity and WFD Annex I and II operations</b>	<b>Limits of specified activity and waste types</b>
A5	S5.6 A(1)(a): Temporary storage of hazardous waste with a total capacity exceeding 50 tonnes.	R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced).  D15: Storage pending any of the operations numbered D1 to D14 (excluding temporary storage pending collection on the site where it is produced).	All storage must take place on an impermeable surface with sealed drainage.  Waste only as per tables 2.4.
A6	S5.4 A(1)(b)(i): Recovery of non-hazardous waste soils with a capacity exceeding 75 tonnes per day involving biological treatment.	Ex-situ biological treatment consisting of bioremediation of non-hazardous waste soils.  R5: Recycling/reclamation of other inorganic compounds.	All treatment and storage must take place on an impermeable surface with sealed drainage.  The biopile gas extraction system must be operational during treatment.  Non-hazardous wastes treated on site will only be used for recovery within the green boundary outlined in schedule 7 of the permit.  Wastes soils only as per Table S2.5.
<b>Directly Associated Activity</b>			
A7	Landfill gas pre-treatment	PpTex Siloxane Removal System	Landfill gas arising from the landfill.
A8	Gas utilisation	Utilisation of landfill gas for energy recovery in an appliance with a rated thermal input of >3 MW and <50 MW (R1 – Use principally as a fuel to generate energy).	Landfill gas arising from the landfill.
A9	Landfill gas flaring	Flaring of landfill gas for disposal in an appliance.	Landfill gas arising from the landfill.
A10	Water discharges to controlled waters	Discharges of site drainage from the landfill and soil treatment facility.	From surface water management system to point of entry to controlled waters.
A11	Leachate discharge to foul sewer	Discharge of leachate from the landfill and soil treatment facility.	From leachate treatment plant to point of entry to sewer.
A12	Screening of waste	Screening of waste to remove any materials which are not suitable for use in restoration or treatment.	All treatment must take place on an impermeable surface with sealed drainage.  Wastes treated on site will only be used for recovery within the green boundary

**Table S1.1 Activities**

<b>Activity reference</b>	<b>Activity listed in Schedule 1 of the EP Regulations</b>	<b>Description of specified activity and WFD Annex I and II operations</b>	<b>Limits of specified activity and waste types</b>
			or disposal within the yellow boundary outlined in schedule 7 of the permit.
A13	Crushing of aggregate.	Crushing of aggregate from the screening of soils to produce materials suitable for restoration or treatment.	Wastes treated on site will only be used for recovery within the green boundary or disposal within the yellow boundary outlined in schedule 7 of the permit.
A14	Blending or mixing of non-hazardous waste soils.	R5: Recycling/reclamation of inorganic materials other than metals and metal compounds.	All treatment must take place on an impermeable surface with sealed drainage.  The blending and mixing of non-hazardous waste is only permitted provided it is in line with approved blending and mixing methodology as set out in pre-operational condition PO3 of table S1.4.  Waste only as per tables 2.5.
A15	Temporary storage of non-hazardous waste pending recovery.	R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced).	All storage must take place on an impermeable surface with sealed drainage.  Waste only as per tables 2.5.
<b>Activity Reference</b>	<b>Description of Activities for Waste Operations</b>	<b>Limits of Activity</b>	
A16	D1: Deposit into or onto land.	Management and monitoring or emissions from the closed landfill being the area edged in blue on the site plan schedule 7 of this permit.	
A17	D5: Specially engineered landfill (e.g. placement into lined discrete cells which are capped and isolated from one another and the environment, etc).	Management and monitoring of emissions from the closed landfill being the area edged in blue on the site plan in schedule 7 of this permit.	
A18	R10: Land treatment resulting in benefit to agriculture or ecological improvement.	Use of waste soils (specified within Table S2.2) to provide restoration soils above the landfill cap in the area edged in green on the site plan in schedule 7 of this permit.	



<b>Table S1.2 Operating techniques</b>		
<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
Application	Response to section B2.1 given in Appendix C of the application.	18/12/00
Westmill II Working Plan	Leachate Management System, Sections 2.4, 2.5, 5.6, 5.7 of the working plan A.6 dated April 2003	04/04/03
Westmill II Working Plan	Landfill gas management system, Sections 2.7, 5.1, 5.2, 5.3, 5.4, 5.5 (Excluding Units and Accuracies in Section 5.2.1) of the working plan A. 6 dated April 2003	04/04/03
Westmill II Working Plan	Surface water Management System, Sections 2.9, 5.9 (Excluding Normal Reporting Limits and Units in section 5.9.2) of the working plan A. 6 dated April 2003	04/04/03
Westmill II Working Plan	Waste handling and storage, Sections 4.11, 4.12 of the working plan A. 6 dated April 2003	04/04/03
Westmill II Working Plan	Waste discharge and placement, Sections 4.12, 4.14.3 of the working plan A. 6 dated April 2003	04/04/03
Westmill II Working Plan	Daily and intermediate cover, Sections 4.14.1, 4.14.2 of the working plan A. 6 dated April 2003	04/04/03
Westmill II Working Plan	Prevention and control of dusts and bioaerosols, Sections 6.4, 6.5 of the working plan A. 6 dated April 2003	04/04/03
Westmill II Working Plan	Prevention and control of odour, Sections 6.2, 6.3 of the working plan A. 6 dated April 2003, subject to the requirements of Schedule 1, Table S1.4, Pre-operational condition 2	04/04/03
Westmill II Working Plan	Prevention and control of birds, vermin and insects, pests and scavengers, Section 6.8 of the working plan A. 6 dated April 2003	04/04/03
Westmill II Working Plan	Prevention and Control of windblown materials, including litter, Section 6.6 of the working plan A. 6 dated April 2003	04/04/03
Westmill II Working Plan	Prevention and control of dirt, mud and debris on roads, Section 6.9 of the working plan A. 6 dated April 2003	04/04/03
Westmill II Working Plan	Energy efficiency, Appendix U of the working plan A. 6 dated April 2003	04/04/03
Westmill II Working Plan	Accident prevention and control, Section 4.2, Appendix Q, Appendix R of the working plan A. 6 dated April 2003	04/04/03
Westmill II Working Plan	Fire prevention and control, Section 4.10 of the working plan A. 6 dated April 2003	04/04/03
Westmill II Working Plan	Unauthorised access prevention and control, Sections 3.5, 4.3, 4.4, 4.5 of the working plan A. 6 dated April 2003	04/04/03
Westmill II Working Plan	Noise, Section 6.7 of the working plan A. 6 dated April 2003	04/04/03
Westmill II Working Plan	Hydrogeological Risk Assessment, Appendix F (Ref 00523300.503/A.1) of the working plan A. 6 dated April 2003	04/04/03
Westmill II Working Plan	Waste recovery and disposal, Appendix V of the working plan A. 6 dated April 2003	04/04/03
Westmill II Working Plan	Raw materials (including water), Section 2.6, 2.10, 4.9, Appendix N of the working plan A. 6 dated April 2003	04/04/03
Westmill II Working Plan	Conceptual and detailed engineering design Section 2.3 of the working plan A. 6 dated April 2003	04/04/03
Westmill II Working Plan	Installation and maintenance of final capping, Section 2.8 of the working plan A. 6 dated April 2003	04/04/03
Westmill II Working Plan	Contaminant Loading Protocol, Appendix Z of the working plan A. 6 dated April 2003	04/04/03
Westmill Closure Report dated February 2006	Section 2.0 Environment Management system Overview Section 3.0 Site Infrastructure	February 2006
Westmill 1 Landfill Site	Section 2.2 Environment Management Systems Overview	21/04/2010

<b>Table S1.2 Operating techniques</b>		
<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
Closure Plan V2 dated April 2010	Section 3.1 Site Infrastructure Section 4.0 Leachate Management Section 5.0 Groundwater Management Section 6.0 Surface Water Management Section 7.0 Landfill Gas Management Section 8.0 Restoration , Maintenance and Stability	
Additional information supplied, Westmill 1 Landfill, site closure	Responses to question 1, Perimeter Sloped Response to question 2, Capping and safety factor Response to question 7, Capping data and safety factor, Response to question 8, safety factor on southern slope Response to question 9, analysis and stability of northern slope. Response to question 10, short, medium and long-term stability of waste mass Response to question 11, leachate monitoring, Response to question 12, Leachate monitoring Response to question 13, Groundwater monitoring Response to question 14, Groundwater monitoring Response to question 15, Surface water monitoring Response to question 16, Gas monitoring Response to question 17 informing the agency	21/04/2010
Application EPR/DP3431PC/V004	Hydrogeological Risk Assessment, Section 3.2, subject to the requirements of Schedule 1, Table S1.3, Improvement condition 1 Stability Risk Assessment, Sections 2.0 and 3.0 Landfill Gas Risk Assessment, Section 4.0	April 2009
Application EPR/DP3431PC/V004	H1 Assessment, Table A1 – Odour Risk Assessment and Management Plan, Subject to the requirement of schedule 1, Table S1.3, Improvement Condition 2  H1 Assessment, Table A2 – Noise Risk Assessment and Management Plan H1 Assessment Table A3 – Fugitive Risk Assessment and Management Plan H1 Assessment Table A4 – Accidents Risk Assessment and Management Plan	April 2009
Further Information Received EPR/DP3431PC/V004	1 <sup>st</sup> Response to the Agency, Sections 2 and 4	January 2010
Schedule 5 Notice EPR/DP3431PC/V004 dated 2 July 2010	Response to question 1,2,3,4 and 5	30 July 2010
Variation Application EPR/DP3431PC/V005	Document reference 407.00034.00435/NTS in response to Question 5c Non Technical Summary part C2 of the application form. Document reference 407.00034.00435/H1 in response to Question 6 H1 Environment Risk Assessment Part C2 of the application form. Section 3, Table 3 Technical standards, Part C3 of the application form.	28/03/12
Variation Application EPR/DP3431PC/V005	Document reference 402-0034-00435/ESID dated March 2012 Environmental Setting and Design. Response to Question 1 of appendix 7, part C3 of the application	28/03/12

Table S1.2 Operating techniques		
Description	Parts	Date Received
	form. ESID Appendix 2 Settlement Modelling and Remedial Material 18 April 2011.	
Variation Application EPR/DP3431PC/V005	Document Reference 407-00034-00435/HRA March 2012 Hydrological risk assessment Reference in response to Question 2 of appendix 7, part C3 of the application form. Document Reference 407-00034-00435/SRA March 2012 Stability Risk assessment in response to Question 3 of appendix 7, part C3 of the application form. Document reference 403.00847.00002/LFGRA March 2012, Landfill Gas Risk Assessment Reference in response to Question 4 of appendix 7, part C3 of the application form.	10/05/12
Variation Application EPR/DP3431PC/V005	Document Reference 407-00034-00435 drawing Number ESID3 Restoration Scheme reference WK234400 February 2012. Post Settlement Profile for Westmill Landfill computer ref WK034200 Drawing number 2 dated 03.03.11.	10/05/12
Variation Application EPR/DP3431PC/V006	Section 3, Table 3 Technical standards, Part C3 of the application form. Document reference 407.00034.0046/BATOT (June 2012). Appendix BATOT1SSI/913/07 Waste Acceptance Procedure SRC - Section 5.0 SRF Output Sampling Methodology.	10/09/12
Schedule 5 request for further information response EPR/DP3431PC/V006	Confirmed batch management to control cross contamination. Confirmation all waste received will meet criteria for restoration on acceptance to the site with regards to non organic contaminants that cannot be treated by the biopile bioremediation process. Confirmation that where possible site equipment will be located into areas below ground levels or behind biopiles to screen noise. Confirmed site has appropriate waste tracking system. Confirmed amount of green waste accepted and stored at the site for use in biopile process. Confirmed dust suppressions methods for aggregate screening and crushing activity. Supplied revised site plan drawing number 02, WK236301.	22/10/12
Additional information EPR/DP3431PC/V005	Updated version of Drawing ESID 2 Document Reference 407-00034-00435 computer reference WK234301 Site layout and proposed Pre- settlement contours February 2012  Drawing and cross sections of inert restoration profiles computer reference WK236700	29/10/12
Application EPR/DP3431PC/V007	Third tier atmospheric dispersion modelling carried out to assess impacts of increasing the capacity of Westmill Landfill Gas Generation Station to 3.195MW, dated September 2012	25/10/12
	Noise Assessment Westmill Landfill Site dated September 2012	25/10/12
	Third tier atmospheric dispersion modelling carried out to assess impacts of increasing the capacity of Westmill Landfill Gas Generation Station to 3.168 MW, dated April 2013	15/04/13
Additional information EPR/DP3431PC/V005	Odour Impact Assessment for revised pre-settlement profiles. Ref: 407.00034.00435_OIAv3 Scenarios A1 and A3	06/11/12

<b>Table S1.2 Operating techniques</b>		
<b>Description</b>	<b>Parts</b>	<b>Date Received</b>
Additional information EPR/DP3431PC/V006	Confirmation of impermeable surface engineering. Revised engineering drawing of impermeable surface drawing number 007, GCL layout.	20/11/12
Schedule 5 Notice request for further information response EPR/DP3431PC/V005	Response to question 1,2 Confirmed leachate level will only be raised to 2 metres where the appropriate infrastructure is in place to contain leachate with freeboard to prevent overspill. Submitted cell design drawings (see below) confirming cells 5,6 and 7 had suitable bunds for containing 2 metre leachate levels in each cell Drawing V-BIF-WEST-C7N-LMS-01 January 2012-12-17 Drawing C1202-12 dated 21 September 2012 Drawing C1108-7 dated 24 October 2011 Drawing C1108-6 dated 20 September 2011 Drawing 072004 dated 9 <sup>th</sup> July 2008 Drawing 072001 dated 21 May 2008	28/11/12
Additional information EPR/DP3431PC/V006	Operator confirmed update of permit conditions in line with the Industrial Emissions Directive.	26/02/2013
Additional information (operators response to a draft schedule 5) EPR/DP3431PC/V005	Request for information response confirmed operating techniques for managing revised pre settlement levels to maintain appropriate settlement profiles Operator confirmed maintaining leachate management beyond 30 years to manage leachate source term until it declines.	29/10/2013
Additional information EPR/DP3431PC/V006	Confirmed that waste codes 19 03 06*, 19 03 07 will only be accepted at the site if prior to solidification they did not possess a hazardous property derived from dangerous substances other than oil derived hydrocarbons and were solidified by a permitted process using non-reacting binders such as clay.	03/04/14 & 04/03/14
Additional information EPR/DP3431PC/V006	Confirmed that waste codes 19-02-05* and 19 02 06 will only be accepted at the site in the form of road sweeping residues and gully suckings that have been processed prior to delivery.	07/02/14
Additional information EPR/DP3431PC/V005	Email confirming implementation of odour management scenario A1 and A3.	07/03/14
Additional information EPR/DP3431PC/V005	Email confirming the low odour waste types for acceptance as part of scenario A1.	02/04/14
Additional information EPR/DP3431PC/V005	Confirmation of wastes streams to be accepted under waste code 20 03 01 as low odour wastes.	08/04/14
Application EPR/DP3431PC/V008	Section 1.1 - Site management	23/07/14
	Appendix 2 – Air Dispersion modelling	23/07/14
	Response dated 15 September 2014 to Not duly-made letter	15/09/14

<b>Table S1.3 Improvement programme requirements</b>		
<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
1	For the area edged in blue on the site plan in schedule 7 of this permit, the operator shall submit a revised closure plan to the EA for written approval which incorporates and addresses the document "Final Comment on Gas Risk Assessment Westmill I migration along Westmill Road and EA comment on closure plan V2 April 2010 which were provided to the operator on the 1 <sup>st</sup> of October 2010 in response to the Close Plan V2 dated April 2010 and supplementary information '1 <sup>st</sup> Response to EA comments on Closure Plan for Westmill I.	Completed
2	For the area edged in blue on the site plan in schedule 7 of this permit, the operator shall submit a report on a review of the onsite management system and infrastructure at the Wesmill I landfill site, the review shall consider the effectiveness and integrity of the: <ul style="list-style-type: none"> <li>• procedures and infrastructure in place to control and manage leachate</li> <li>• Procedures and infrastructure in place to control and manage groundwater quality ; and</li> <li>• procedures and infrastructure in place to control and monitor surface water quality</li> </ul> Where issues are identified the operator shall include within the report a time-tables plan for improvements <ul style="list-style-type: none"> <li>• such improvements shall be implemented in line with the written approval from the Environment Agency</li> </ul>	Completed
3	For the area edged in blue on the site plan in schedule 7 of this permit, the operator shall submit a report detailing a survey on the cap (including the area known as Cell 0) to assess its effectiveness at controlling the ingress of air and rainwater into the waste mass and escape of landfill gas in line with LFTGN03. Where the controls are found to be insufficient then the operator shall propose a time-table program of improvements to the landfill cap. The improvements shall be implemented in line with the written approval from the Environment Agency	Completed
4	For the area edged in blue on the site plan in schedule of this permit, the operator shall excavate the existing stockpiles of chalk and quarry materials placed over the temporary capped area to the western end of the southern slop to allow for permanent capping of the waste materials	Completed
5	For the area edged on blue on the site plan in schedule 7 of this permit, the operator shall submit a CQA plan and design specification to the Environment Agency for approval details the work to be cone to permanently cap the waste forming the southern clop of cell 2 and 3. The proposed work must be in line with the condition 2.5.2 and current engineering standards outlined in LFE01 – LFE10. Particular emphasis should be given to demonstrating that the slop stability is appropriate. The operator shall also provide a proposed timetable for the completion of the work. The work shall be completed in line with written agreement form the Environment Agency	Completed
6	For the area edged in blue on the site plan in schedule 7 of this permit the operator shall undertake a detailed and accurate stability assessment for the northern and southern revise slopes. The assessment must demonstrate that <ol style="list-style-type: none"> <li>a) a factor safety greater than 1.5 (for short, medium and long term for all elements present within the slope will be achieved</li> </ol>	Completed

	<p>b) design and permeability of the cover materials. Allow sufficient drainage along the entire length of the slope., (relevant Ru value, to be agreed with the Environment Agency)</p> <p>c) the shear strength, density and permeability of the proposed sub-soils and top-soils are such to be appropriate for the restoration work being undertaken.</p> <p>The agree assessment shall be taken into consideration in the design of the final cap for the landfill</p>	
7	<p>For the area edge in blue on the site plan in schedule 7 of this permit, the operator shall submit a report to the Environment Agency detailing and in-depth audit of the landfill gas management system. The audit shall include but no be limit to:</p> <ul style="list-style-type: none"> <li>• An assessment of well distribution including zones of influence,</li> <li>• Status and serviceability; a dip survey; gas flow readings; suction pressure losses between gas well and manifold; gas well seal integrity assessment to determine if gas wells are operating appropriately,</li> <li>• Maintenance &amp; balancing ,</li> <li>• An assessment of the installed system against the requirements of LFTGN03</li> </ul> <p>Where improvement to the landfill gas management system are required in line with LFTGN03 then the operator shall propose a time-tabled plan for such improvements shall be implemented in line with written approval from the Environment Agency.</p>	Completed
8	<p>For the are edged in blue on the site plan in schedule 7 of this permit, the operator shall carry out an investigation detailing methane and carbon dioxides levels in perimeter gas perimeter gas monitoring boreholes to determine the underlying cause of elevate levels by identifying and establishing the true source(s) of such gases and their potential migration pathways, this shall include but not be limited to:</p> <ul style="list-style-type: none"> <li>• A review of the historical site information to indentify if the perimeter gas monitoring borehole are being influence by other gas sources other than landfill gas</li> <li>• A review of the conceptual model to identify any feature that could affect gas migration including an assessment of barrier, pathways and construction of the monitoring boreholes.</li> <li>• A review of the historical monitoring data to establish predictive trends for gas concentration with the these monitoring boreholes, source identification shall be justified by appropriate trace gas analysis</li> <li>• The information obtained from IC 7 shall be used to determine extent to which the present gas infrastructure is contribution to the perimeter gas migration and shall include techniques to prevent or minimise gas migration at the perimeter of the site.</li> </ul>	Completed
9	<p>For the area edged in blue on the site plan in schedule 7 of this permit, the operator shall submit a landfill gas management improvement plan for approval by the Environment Agency which incorporate the following:</p> <ul style="list-style-type: none"> <li>• All improvement techniques, particular those related to the gas migration, with timescale for implementation. This shall include all action that area required to bring the gas management system in line with the requirement of LFTGN 03 r otherwise as agreed oin writing with the Environment Agency</li> <li>• Results of the investigation required by IC9, including recommendation with a timetable for implementation and further review</li> <li>• Revised gas management procured appropriate to the site setting and</li> </ul>	Completed

	<p>situation considering the sensitivity of the interface liner and ongoing gas migration.</p> <p>The operator shall derive appropriate compliance, assessment levels and monitoring frequency for monitoring boreholes for agreement. These levels shall be based upon the outcome of the investigation</p>	
10	<p>For the area edged in blue on the site plan in schedule 7 of this permit, the operator shall, conduct a detail investigation into the present of the subsurface fires and submit a report detailing the finding to the Environment Agency.</p> <p>This investigation and report shall be in accordance with the ICOP Management and Prevention of Sub-surface fires , and include</p> <ul style="list-style-type: none"> <li>• A desktop assessment of all relevant, available monitoring data. Evaluation for the need for additional monitoring points plus their installation.</li> <li>• A programme of monitoring form previously affected wells and additional point include temperature and combustion products/fire indicator including bag sampling where appropriate</li> <li>• A risk assessment based of the finding of the investigation showing the current risk from previous, existing and potential future occurrence of subsurface fires</li> </ul>	Completed
11	<p>The operator shall submit to the Environment Agency for written approval a consolidated HRA which is to cover the area outlined in green in schedule 7 of this permit. The HRA shall include a review of all ground water monitoring data for the site and shall suggest appropriate monitoring suites and trigger levels for contaminants to groundwater. Once the RA has been agreed in writing by the Environment Agency, the findings are to be incorporated into the permit monitoring schedules.</p>	Completed
12	<p>The operator shall submit to the Environment Agency for approval written details of the specific operating parameters for the biofilter and the optimal operating condition ranges which will be maintained.</p>	3 months from commencement of operation of the Soil Treatment Facility.
13	<p>The operator shall submit a written monitoring programme to the Environment Agency for approval. The monitoring programme shall contain proposals for;</p> <ul style="list-style-type: none"> <li>• Monitoring volatile organic compounds and odour emissions from the biofilter</li> <li>• Monitoring biofilter operating parameters</li> </ul> <p>The operator shall provide details of monitoring methods, monitoring frequency and dates for the implementation of any individual measures.</p>	3 months from commencement of operation of the Soil Treatment Facility.
14	<p>The operator shall submit to the Environment Agency for written approval a consolidated version of the site's management system. This document shall incorporate the most up to date versions of site's management plans, operating techniques and working plan.</p>	24/02/15

<b>Table S1.4 Pre-operational measures</b>	
<b>Reference</b>	<b>Pre – operational measures</b>
1	At least 2 weeks prior to operation of the Soil Treatment Facility, the operator shall submit to the Environment Agency a report including a quantitative risk assessment for written approval demonstrating that the leachate treatment plant serving the landfill has the ability and capacity to effectively treat leachate from the Soil Treatment Facility.
2	At least 2 weeks prior to operation of the Soil Treatment Facility, the operator shall submit a review of the site's odour monitoring and management plan specifically related to the Soil Treatment Facility to the Environment Agency for written approval.
3	Prior to operation of the bioremediation process, the operator shall submit a methodology for the blending and mixing of wastes to the Environment Agency for written approval. The mixing and blending of hazardous and non-hazardous waste shall not commence until the Environment Agency has approved the methodology.
4	At least 2 weeks prior to sending any waste for landfill restoration, the operator shall submit a site specific risk assessment to the Environment Agency which demonstrates that treated waste will not impact on the local groundwater. Waste shall not be deposited at the site for restoration until the risk assessment has been agreed by the Environment Agency in writing.
5	At least 2 weeks prior to sending any residual waste for use as daily cover, the operator shall submit a report to the Environment Agency which demonstrates that the treated soils are acceptable to deposit at the landfill. Waste shall not be used for daily cover until the report has been agreed by the Environment Agency in writing.
6	<p>The operator shall submit a Validation Report to the Environment Agency as soon as practicable following the construction of site infrastructure. The report shall summarise the environmental performance of the plant as installed against the design parameters set out in the Application. The report shall include a comprehensive record of the construction and must include, where relevant:</p> <ul style="list-style-type: none"> <li>• Details of any changed to the approved design and justification for those changes;</li> <li>• "As-built" plans and sections of the works;</li> <li>• Records of any problems or non-compliance and the solution applied;</li> <li>• Any other site specific information considered relevant to proving the integrity of the construction;</li> <li>• Validation by a qualified person that all of the construction has been carried out in accordance with the construction proposals.</li> </ul> <p>A review of the performance of the facility against the conditions of this permit and details of procedures developed during commissioning for achieving and demonstrating compliance with permit conditions.</p>
7	<p>The operator shall review all risk assessments, management systems and procedure for wastes being accepted, treated and stored at the soil treatment facility.</p> <p>This review shall ensure that appropriate measures are taken when accepting, handling and storing the wastes, ensuring that all emissions are prevented, in line with Environment Agency guidance SGN 5.06. The Operator shall write to the Environment Agency to confirm that this review has been undertaken prior to the acceptance of waste at the soil treatment facility.</p>



<b>Table S1.4 Pre-operational measures</b>	
<b>Reference</b>	<b>Pre – operational measures</b>
8	<p>At least 2 weeks prior to operation of the Soil Treatment Facility the operator shall submit to the Environment Agency for written approval a gas risk assessment which investigates the potential for gas from Westmill 1 to migrate towards the soil treatment facility.</p> <p>The assessment shall also review the need for gas management infrastructure at the site and submit proposals. For example:</p> <ul style="list-style-type: none"> <li>• Installation of collections wells in the areas beneath or surrounding the soil treatment facility</li> <li>• Installation of collection infrastructure within the Westmill 1 to capture gas venting towards the landfill.</li> </ul> <p>Once approved the operator's proposals shall be implemented at the site within a timescale agreed with the Environment Agency</p>
9	<p>Prior to implementing a 2 metre leachate level compliance limit, the operator shall demonstrate to the Environment Agency for each individual cell there are engineered bunds which provide sufficient freeboard to effectively contain leachate within individual landfill cells and obtain the Environment Agency's written confirmation the 2m head can be implemented [in that cell]' (freeboard being the distance between the leachate levels compliance limit and the height of the engineered bunds).</p>
10	<p>At least 2 weeks prior to implementing 2 metre leachate head compliance limits in accordance with pre-operational condition 9, the operator shall submit to the Environment Agency a revised leachate management plan for written approval that includes the following;</p> <ul style="list-style-type: none"> <li>• information to demonstrate the leachate plant has the capacity to adequately treat the volumes of leachate to be generated and maintain the compliance limit of 2 metres;</li> <li>• Leachate control levels with full justification of these levels in relation to compliance limits; and</li> <li>• A contingency plan which demonstrates the actions to be taken upon a breach of a control level.</li> </ul> <p>The leachate management plan shall be implemented in accordance with the Environment Agency's written approval.</p>
11	<p>Prior to depositing in any cell which has been subject to a thermal incident any further waste [other than inert waste] to meet the revised pre settlement profiles the operator shall submit a written report to demonstrate they have resolved the incident and have obtained the Environment Agency's written approval to the report</p>

<b>Table S1.5A Annual waste input limits</b>	
<b>Category</b>	<b>Limit Tonnes/ Year</b>
Non-hazardous waste	399,999
Inert waste including inert waste imported for restoration	No restriction

<b>Table S1.5B Annual waste Input limits to the area edged in green on the site plan in Schedule 7 of this permit</b>	
<b>Category</b>	<b>Limit Tonnes/Year</b>
Inert waste for restoration	Unlimited
Inert Waste for engineering landfill infrastructure	Unlimited

## Schedule 2 – List of permitted wastes

<b>Table S2.1 Permitted waste types</b>		
<b>Waste code</b>	<b>Description</b> ✓ = low odour R/A = low odour waste subject to risk assessment N = not low odour	
<b>01</b>	<b>WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS</b>	
<b>01 01</b>	<b>wastes from mineral excavation</b>	
01 01 01	wastes from mineral metalliferous excavation	✓
01 01 02	wastes from mineral non-metalliferous excavation	✓
<b>01 03</b>	<b>wastes from physical and chemical processing of metalliferous minerals</b>	
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	✓
<b>01 04</b>	<b>wastes from physical and chemical processing of non-metalliferous minerals</b>	
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	✓
<b>01 05</b>	<b>drilling muds and other drilling wastes</b>	
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	✓
<b>02</b>	<b>WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING</b>	
<b>02 01</b>	<b>wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing</b>	
02 01 01	sludges from washing and cleaning	N
02 01 02	animal-tissue waste	N
02 01 03	plant-tissue waste	RA
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	N
02 01 07	wastes from forestry	✓
02 01 09	agrochemical waste other than those mentioned in 02 01 08	RA
02 01 10	waste metal	✓
<b>02 02</b>	<b>wastes from the preparation and processing of meat, fish and other foods of animal origin</b>	
02 02 01	sludges from washing and cleaning	N
02 02 02	animal-tissue waste	RA

<b>Table S2.1 Permitted waste types</b>		
<b>Waste code</b>	<b>Description</b> ✓ = low odour R/A = low odour waste subject to risk assessment N = not low odour	
02 02 03	materials unsuitable for consumption or processing	RA
02 02 04	sludges from on-site effluent treatment	N
<b>02 03</b>	<b>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</b>	
02 03 01	sludges from washing, cleaning, peeling, centrifuging and separation	N
02 03 02	wastes from preserving agents	RA
02 03 03	wastes from solvent extraction	RA
02 03 04	materials unsuitable for consumption or processing	RA
02 03 05	sludges from on-site effluent treatment	N
<b>02 04</b>	<b>wastes from sugar processing</b>	
02 04 01	soil from cleaning and washing beet	RA
02 04 02	off-specification calcium carbonate	RA
02 04 03	sludges from on-site effluent treatment	N
<b>02 05</b>	<b>wastes from the dairy products industry</b>	
02 05 01	materials unsuitable for consumption or processing	RA
02 05 02	sludges from on-site effluent treatment	N
<b>02 06</b>	<b>wastes from the baking and confectionery industry</b>	
02 06 01	materials unsuitable for consumption or processing	RA
02 06 02	wastes from preserving agents	RA
02 06 03	sludges from on-site effluent treatment	N
<b>02 07</b>	<b>wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)</b>	
02 07 01	wastes from washing, cleaning and mechanical reduction of raw materials	RA
02 07 02	wastes from spirits distillation	RA
02 07 03	wastes from chemical treatment	RA
02 07 04	materials unsuitable for consumption or processing	RA
02 07 05	sludges from on-site effluent treatment	N
<b>03</b>	<b>WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURNITURE, PULP, PAPER AND CARDBOARD</b>	
<b>03 01</b>	<b>wastes from wood processing and the production of panels and furniture</b>	
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	✓
<b>03 03</b>	<b>wastes from pulp, paper and cardboard production and processing</b>	
03 03 01	waste bark and wood	✓
03 03 02	green liquor sludge (from recovery of cooking liquor)	N
03 03 05	de-inking sludges from paper recycling	N
03 03 07	mechanically separated rejects from pulping of waste paper and cardboard	RA
03 03 08	wastes from sorting of paper and cardboard destined for recycling	RA
03 03 09	lime mud waste	RA
03 03 10	fibre rejects, fibre-, filler- and coating-sludges from mechanical separation	N
03 03 11	sludges from on-site effluent treatment other than those mentioned in 03 03 10	N

<b>Table S2.1 Permitted waste types</b>		
<b>Waste code</b>	<b>Description</b> ✓ = low odour R/A = low odour waste subject to risk assessment N = not low odour	
<b>04</b>	<b>WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES</b>	
<b>04 01</b>	<b>wastes from the leather and fur industry</b>	
04 01 01	fleshings and lime split wastes	RA
04 01 02	liming waste	RA
04 01 06	sludges, in particular from on-site effluent treatment containing chromium	N
04 01 07	sludges, in particular from on-site effluent treatment free of chromium	N
04 01 08	waste tanned leather (blue sheetings, shavings, cuttings, buffing dust) containing chromium	Y
04 01 09	wastes from dressing and finishing	RA
<b>04 02</b>	<b>wastes from the textile industry</b>	
04 02 09	wastes from composite materials (impregnated textile, elastomer, plastomer)	RA
04 02 10	organic matter from natural products (for example grease, wax)	RA
04 02 15	wastes from finishing other than those mentioned in 04 02 14	RA
04 02 17	dyestuffs and pigments other than those mentioned in 04 02 16	RA
04 02 20	sludges from on-site effluent treatment other than those mentioned in 04 02 19	N
04 02 21	wastes from unprocessed textile fibres	✓
04 02 22	wastes from processed textile fibres	✓
<b>05</b>	<b>WASTES FROM PETROLEUM REFINING, NATURAL GAS PURIFICATION AND PYROLYTIC TREATMENT OF COAL</b>	
<b>05 01</b>	<b>wastes from petroleum refining</b>	
05 01 10	sludges from on-site effluent treatment other than those mentioned in 05 01 09	N
05 01 13	boiler feedwater sludges	N
05 01 14	wastes from cooling columns	RA
<b>05 06</b>	<b>wastes from the pyrolytic treatment of coal</b>	
05 06 04	waste from cooling columns	RA
<b>08</b>	<b>WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS</b>	
<b>08 01</b>	<b>wastes from MFSU and removal of paint and varnish</b>	
08 01 12	waste paint and varnish other than those mentioned in 08 01 11	RA
08 01 14	sludges from paint or varnish other than those mentioned in 08 01 13	N
08 01 18	wastes from paint or varnish removal other than those mentioned in 08 01 17	RA
<b>08 02</b>	<b>wastes from MFSU of other coatings (including ceramic materials)</b>	
08 02 01	waste coating powders	RA
<b>08 03</b>	<b>wastes from MFSU of printing inks</b>	
08 03 15	ink sludges other than those mentioned in 08 03 14	N
08 03 18	waste printing toner other than those mentioned in 08 03 17	RA
<b>08 04</b>	<b>wastes from MFSU of adhesives and sealants (including waterproofing products)</b>	
08 04 10	waste adhesives and sealants other than those mentioned in 08 04 09	RA
08 04 12	adhesive and sealant sludges other than those mentioned in 08 04 11	N
<b>10</b>	<b>WASTES FROM THERMAL PROCESSES</b>	

<b>Table S2.1 Permitted waste types</b>		
<b>Waste code</b>	<b>Description</b> ✓ = low odour R/A = low odour waste subject to risk assessment N = not low odour	
<b>10 01</b>	<b>wastes from power stations and other combustion plants (except 19)</b>	
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	RA
10 01 07	calcium-based reaction wastes from flue-gas desulphurisation in sludge form	N
10 01 15	bottom ash, slag and boiler dust from co-incineration other than those mentioned in 10 01 14	Y
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	RA
10 01 21	sludges from on-site effluent treatment other than those mentioned in 10 01 20	N
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	RA
<b>10 02</b>	<b>wastes from the iron and steel industry</b>	
10 02 01	wastes from the processing of slag	RA
10 02 02	unprocessed slag	RA
10 02 08	solid wastes from gas treatment other than those mentioned in 10 02 07	RA
10 02 10	mill scales	RA
10 02 12	wastes from cooling-water treatment other than those mentioned in 10 02 11	RA
10 02 14	sludges and filter cakes from gas treatment other than those mentioned in 10 02 13	N
10 02 15	other sludges and filter cakes	N
<b>10 03</b>	<b>wastes from aluminium thermal metallurgy</b>	
10 03 02	anode scraps	RA
10 03 05	waste alumina	RA
10 03 16	skimmings other than those mentioned in 10 03 15	RA
10 03 18	carbon-containing wastes from anode manufacture other than those mentioned in 10 03 17	RA
10 03 20	flue-gas dust other than those mentioned in 10 03 19	RA
10 03 22	other particulates and dust (including ball-mill dust) other than those mentioned in 10 03 21	RA
10 03 24	solid wastes from gas treatment other than those mentioned in 10 03 23	RA
10 03 26	sludges and filter cakes from gas treatment other than those mentioned in 10 03 25	N
10 03 28	wastes from cooling-water treatment other than those mentioned in 10 03 27	RA
10 03 30	wastes from treatment of salt slags and black drosses other than those mentioned in 10 03 29	RA
<b>10 05</b>	<b>wastes from zinc thermal metallurgy</b>	
10 05 01	slags from primary and secondary production	RA
10 05 04	other particulates and dust	Y
10 05 09	wastes from cooling-water treatment other than those mentioned in 10 05 08	RA

<b>Table S2.1 Permitted waste types</b>		
<b>Waste code</b>	<b>Description</b> ✓ = low odour R/A = low odour waste subject to risk assessment N = not low odour	
10 05 11	dross and skimmings other than those mentioned in 10 05 10	RA
<b>10 06</b>	<b>wastes from copper thermal metallurgy</b>	
10 06 01	slags from primary and secondary production	RA
10 06 02	dross and skimmings from primary and secondary production	RA
10 06 04	other particulates and dust	RA
10 06 10	wastes from cooling-water treatment other than those mentioned in 10 06 09	RA
<b>10 07</b>	<b>wastes from silver, gold and platinum thermal metallurgy</b>	
10 07 01	slags from primary and secondary production	RA
10 07 02	dross and skimmings from primary and secondary production	RA
10 07 03	solid wastes from gas treatment	RA
10 07 04	other particulates and dust	RA
10 07 05	sludges and filter cakes from gas treatment	N
10 07 08	wastes from cooling-water treatment other than those mentioned in 10 07 07	RA
<b>10 08</b>	<b>wastes from other non-ferrous thermal metallurgy</b>	
10 08 04	particulates and dust	RA
10 08 09	other slags	RA
10 08 11	dross and skimmings other than those mentioned in 10 08 10	RA
10 08 13	carbon-containing wastes from anode manufacture other than those mentioned in 10 08 12	RA
10 08 14	anode scrap	RA
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	N
10 08 20	wastes from cooling-water treatment other than those mentioned in 10 08 19	RA
<b>10 09</b>	<b>wastes from casting of ferrous pieces</b>	
10 09 03	furnace slag	RA
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	✓
<b>10 10</b>	<b>wastes from casting of non-ferrous pieces</b>	
10 10 03	furnace slag	RA
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	✓

<b>Table S2.1 Permitted waste types</b>		
<b>Waste code</b>	<b>Description</b> ✓ = low odour R/A = low odour waste subject to risk assessment N = not low odour	
10 10 16	waste crack-indicating agent other than those mentioned in 10 10 15	✓
<b>10 11</b>	<b>wastes from manufacture of glass and glass products</b>	
10 11 03	waste glass-based fibrous materials	✓
10 11 05	particulates and dust	✓
10 11 10	waste preparation mixture before thermal processing, other than those mentioned in 10 11 09	✓
10 11 12	waste glass other than those mentioned in 10 11 11	✓
10 11 14	glass-polishing and -grinding sludge other than those mentioned in 10 11 13	N
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	N
10 11 20	solid wastes from on-site effluent treatment other than those mentioned in 10 11 19	N
<b>10 12</b>	<b>wastes from manufacture of ceramic goods, bricks, tiles and construction products</b>	
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	N
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	RA
10 12 12	wastes from glazing other than those mentioned in 10 12 11	✓
10 12 13	sludge from on-site effluent treatment	N
<b>10 13</b>	<b>wastes from manufacture of cement, lime and plaster and articles and products made from them</b>	
10 13 01	waste preparation mixture before thermal processing	✓
10 13 04	wastes from calcination and hydration of lime	RA
10 13 06	particulates and dust (except 10 13 12 and 10 13 13)	✓
10 13 07	sludges and filter cakes from gas treatment	N
10 13 10	wastes from asbestos-cement manufacture other than those mentioned in 10 13 09	Y
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	N
<b>11</b>	<b>WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDROMETALLURGY</b>	
<b>11 02</b>	<b>wastes from non-ferrous hydrometallurgical processes</b>	
11 02 03	wastes from the production of anodes for aqueous electrolytical processes	RA
11 02 06	wastes from copper hydrometallurgical processes other than those mentioned in 11 02 05	RA
<b>11 05</b>	<b>wastes from hot galvanising processes</b>	
11 05 01	hard zinc	RA
11 05 02	zinc ash	RA

<b>Table S2.1 Permitted waste types</b>		
<b>Waste code</b>	<b>Description</b> ✓ = low odour R/A = low odour waste subject to risk assessment N = not low odour	
<b>12</b>	<b>WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS</b>	
<b>12 01</b>	<b>wastes from shaping and physical and mechanical surface treatment of metals and plastics</b>	
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	Y
12 01 04	non-ferrous metal dust and particles	✓
12 01 05	plastics shavings and turnings	✓
12 01 13	welding wastes	✓
12 01 15	machining sludges other than those mentioned in 12 01 14	N
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	✓
<b>15</b>	<b>WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED</b>	
<b>15 01</b>	<b>packaging (including separately collected municipal packaging waste)</b>	
15 01 01	paper and cardboard packaging	Y
15 01 02	plastic packaging	✓
15 01 03	wooden packaging	✓
15 01 04	metallic packaging	Y
15 01 05	composite packaging	✓
15 01 06	mixed packaging	✓
15 01 07	glass packaging	✓
15 01 09	textile packaging	✓
<b>15 02</b>	<b>absorbents, filter materials, wiping cloths and protective clothing</b>	
15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02	RA
<b>16</b>	<b>WASTES NOT OTHERWISE SPECIFIED IN THE LIST</b>	
<b>16 01</b>	<b>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)</b>	
16 01 06	end-of-life vehicles, containing neither liquids nor other hazardous components	✓
16 01 12	brake pads other than those mentioned in 16 01 11	✓
16 01 16	tanks for liquefied gas	RA
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	✓
<b>16 03</b>	<b>off-specification batches and unused products</b>	
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	RA



<b>Table S2.1 Permitted waste types</b>		
<b>Waste code</b>	<b>Description</b> ✓ = low odour R/A = low odour waste subject to risk assessment N = not low odour	
<b>16 08</b>	<b>spent catalysts</b>	
16 08 01	spent catalysts containing gold, silver, rhenium, rhodium, palladium, iridium or platinum (except 16 08 07)	RA
<b>16 11</b>	<b>waste linings and refractories</b>	
16 11 02	carbon-based linings and refractories from metallurgical processes others than those mentioned in 16 11 01	RA
16 11 04	other linings and refractories from metallurgical processes other than those mentioned in 16 11 03	RA
16 11 06	linings and refractories from non-metallurgical processes others than those mentioned in 16 11 05	RA
<b>17</b>	<b>CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)</b>	
<b>17 01</b>	<b>concrete, bricks, tiles and ceramics</b>	
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*	✓
<b>17 02</b>	<b>wood, glass and plastic</b>	
17 02 01	wood	✓
17 02 02	glass	✓
17 02 03	plastic	✓
<b>17 04</b>	<b>metals (including their alloys)</b>	
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	✓
<b>17 05</b>	<b>soil (including excavated soil from contaminated sites), stones and dredging spoil</b>	
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	✓
<b>17 06</b>	<b>insulation materials and asbestos-containing construction materials</b>	
17 06 04	insulation materials other than those mentioned in 17 06 01 and 17 06 03	✓
<b>17 08</b>	<b>gypsum-based construction material</b>	
17 08 02	gypsum-based construction materials other than those mentioned in 17 08 01	RA
<b>17 09</b>	<b>other construction and demolition wastes</b>	
17 09 04	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03	✓

<b>Table S2.1 Permitted waste types</b>		
<b>Waste code</b>	<b>Description</b> ✓ = low odour R/A = low odour waste subject to risk assessment N = not low odour	
<b>18</b>	<b>WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (except kitchen and restaurant wastes not arising from immediate health care)</b>	
18 01	<b>wastes from natal care, diagnosis, treatment or prevention of disease in humans</b>	
18 01 04	wastes whose collection and disposal is not subject to special requirements in order to prevent infection (for example dressings, plaster casts, linen, disposable clothing, diapers)	RA
18 02	<b>wastes from research, diagnosis, treatment or prevention of disease involving animals</b>	
18 02 03	wastes whose collection and disposal is not subject to special requirements in order to prevent infection	RA
<b>19</b>	<b>WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE</b>	
<b>19 01</b>	<b>wastes from incineration or pyrolysis of waste</b>	
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	✓
<b>19 03</b>	<b>stabilised/solidified wastes</b>	
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	✓
<b>19 04</b>	<b>vitrified waste and wastes from vitrification</b>	
19 04 01	vitrified waste	✓
<b>19 05</b>	<b>wastes from aerobic treatment of solid wastes</b>	
19 05 01	non-composted fraction of municipal and similar wastes	RA
19 05 02	non-composted fraction of animal and vegetable waste	RA
19 05 03	off-specification compost	RA
<b>19 06</b>	<b>wastes from anaerobic treatment of waste</b>	
19 06 04	digestate from anaerobic treatment of municipal waste	RA
19 06 06	digestate from anaerobic treatment of animal and vegetable waste	RA
<b>19 08</b>	<b>wastes from waste water treatment plants not otherwise specified</b>	
19 08 01	screenings	RA
19 08 02	waste from desanding	RA
19 08 05	sludges from treatment of urban waste water	N
19 08 09	grease and oil mixture from oil/water separation containing only edible oil and fats	RA
19 08 14	sludges from other treatment of industrial waste water other than those mentioned in 19 08 13	N
<b>19 09</b>	<b>wastes from the preparation of water intended for human consumption or water for industrial use</b>	
19 09 01	solid waste from primary filtration and screenings	RA
19 09 02	sludges from water clarification	N

<b>Table S2.1 Permitted waste types</b>		
<b>Waste code</b>	<b>Description</b> ✓ = low odour R/A = low odour waste subject to risk assessment N = not low odour	
19 09 03	sludges from decarbonation	N
19 09 05	saturated or spent ion exchange resins	RA
19 09 06	sludges from regeneration of ion exchangers	N
<b>19 10</b>	<b>wastes from shredding of metal-containing wastes</b>	
19 10 01	iron and steel waste	RA
19 10 02	non-ferrous waste	RA
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	RA
<b>19 12</b>	<b>wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified</b>	
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 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	RA
<b>19 13</b>	<b>wastes from soil and groundwater remediation</b>	
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01	RA
19 13 04	sludges from soil remediation other than those mentioned in 19 13 03	N
<b>20</b>	<b>MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS</b>	
<b>20 01</b>	<b>separately collected fractions (except 15 01)</b>	
20 01 01	paper and cardboard	✓
20 01 02	glass	✓
20 01 08	biodegradable kitchen and canteen waste	N
20 01 10	clothes	✓
20 01 11	textiles	✓
20 01 25	edible oil and fat	RA
20 01 28	paint, inks, adhesives and resins other than those mentioned in 20 01 27	RA
20 01 30	detergents other than those mentioned in 20 01 29	RA
20 01 38	wood other than that mentioned in 20 01 37	✓
20 01 39	plastics	✓
20 01 40	metals	✓
20 01 41	wastes from chimney sweeping	✓
20 01 99	(1) Other fractions not otherwise specified limited to non-clinical human and animal offensive/hygiene waste (not arising from healthcare and/or related research i.e. not including waste from natal care, diagnosis, treatment or prevention of disease) which is not subject to special requirements in order to prevent infection.	(2) RA

<b>Table S2.1 Permitted waste types</b>		
<b>Waste code</b>	<b>Description</b>	
	✓ = low odour R/A = low odour waste subject to risk assessment N = not low odour	
<b>20 02</b>	<b>garden and park wastes (including cemetery waste)</b>	
20 02 01	biodegradable waste	N
20 02 02	soil and stones	✓
20 02 03	other non-biodegradable wastes	✓
<b>20 03</b>	<b>other municipal wastes</b>	
20 03 01	mixed municipal waste	RA
20 03 02	waste from markets	N
20 03 03	street-cleaning residues	y
20 03 04	septic tank sludge	N
20 03 06	waste from sewage cleaning	N
20 03 07	bulky waste	✓

<b>Table S2.2 Permitted waste types and quantities for providing restoration soils to the area edged in green on the site plan in schedule 7 of this permit</b>		
<b>Waste code</b>	<b>Description</b>	
<b>01</b>	<b>WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS</b>	
<b>01 01</b>	<b>wastes from mineral excavation</b>	
01 01 02	wastes from mineral metalliferous excavation	
<b>01 04</b>	<b>wastes from physical and chemical processing of non-metalliferous minerals</b>	
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07	
01 04 09	waste sand and clays	
<b>17</b>	<b>CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)</b>	
<b>17 01</b>	<b>concrete, bricks, tiles and ceramics</b>	
17 01 01	concrete	
17 01 02	bricks	
17 01 03	tiles and ceramics	
17 01 07	mixtures of concrete, bricks, tiles and ceramics	
<b>17 05</b>	<b>soil (including excavated soil from contaminated sites), stones and dredging spoil</b>	
17 05 04	soil and stones other than those mentioned in 17 05 03	
<b>19</b>	<b>WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE</b>	
<b>19 13</b>	<b>wastes from soil and groundwater remediation</b>	
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01	
<b>20</b>	<b>MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS</b>	
<b>20 02</b>	<b>garden and park wastes (including cemetery waste)</b>	
20 02 02	soil and stones	

**Table S2.3 Raw materials and fuels**

Raw materials and fuel description	Limit Tonnes/Year
Additives (bacterial growth and promotion)	50

**Table S2.4 Permitted waste types and quantities for soil treatment (operation A3)**

Maximum quantity	The total quantity of waste types in this table that can be accepted at the site shall be less than 30,000 tonnes per year Exclusions - No liquid waste
Waste code	Description
<b>01</b>	<b>WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS</b>
01 05	<b>drilling muds and other drilling wastes</b>
01 05 05*	oil-containing drilling muds and wastes
01 05 06*	drilling muds and other drilling wastes containing dangerous substances
<b>17</b>	<b>CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)</b>
17 05	<b>soil (including excavated soil from contaminated sites), stones and dredging spoil</b>
17 05 03*	soil and stones containing dangerous substances
17 05 05*	dredging spoil containing dangerous substances
17 05 07*	track ballast containing dangerous substances
<b>19</b>	<b>WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE</b>
<b>19 02</b>	<b>wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)</b>
19 02 05*	sludges from physico/chemical treatment containing dangerous substances
<b>19 03</b>	<b>stabilised/solidified wastes</b>
19 03 06*	waste marked as hazardous, solidified
<b>19 13</b>	<b>wastes from soil and groundwater remediation</b>
19 13 01*	solid wastes from soil remediation containing dangerous substances
19 13 03*	sludges from soil remediation containing dangerous substances

**Table S2.5 Permitted waste types and quantities**

Maximum quantity	The total quantity of waste types in the this table that can be accepted at the site shall be less than 30,000 tonnes per year of non hazardous waste and 1,500 tonnes per year of non-hazardous biodegradable waste, including garden and park wastes (including cemetery waste), wood from separately collection fractions of municipal waste and wood from the mechanical treatment of waste.  Exclusions - No liquid waste
Waste code	Description
<b>01</b>	<b>WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS</b>
<b>01 04</b>	<b>wastes from physical and chemical processing of non-metalliferous minerals</b>
01 04 09	waste sand and clays
<b>01 05</b>	<b>drilling muds and other drilling wastes</b>
01 05 04	freshwater drilling muds and wastes
<b>17</b>	<b>CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)</b>
<b>17 05</b>	<b>soil (including excavated soil from contaminated sites), stones and dredging spoil</b>
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
<b>19</b>	<b>WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE</b>
<b>19 02</b>	<b>wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)</b>
19 02 06	sludges from physico/chemical treatment other than those mentioned in 19 02 05
<b>19 03</b>	<b>waste marked as hazardous, solidified</b>
19 03 07	solidified wastes other than those mentioned in 19 03 06
<b>19 05</b>	<b>wastes from aerobic treatment of solid wastes</b>
19 05 03	off-specification compost
<b>19 08</b>	<b>wastes from waste water treatment plants not otherwise specified</b>
19 08 01	screenings
19 08 02	waste from desanding
<b>19 12</b>	<b>wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified</b>
19 12 07	wood other than that mentioned in 19 12 06
<b>19 13</b>	<b>wastes from soil and groundwater remediation</b>
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01
19 13 04	sludges from soil remediation other than those mentioned in 19 13 03
<b>20</b>	<b>MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS</b>
<b>20 01</b>	<b>separately collected fractions (except 15 01)</b>
20 01 38	wood other than that mentioned in 20 01 37
<b>20 02</b>	<b>garden and park wastes (including cemetery waste)</b>
20 02 01	biodegradable waste
<b>20 03</b>	<b>other municipal wastes</b>
20 03 03	street cleaning residues

## Schedule 3 – Emissions and monitoring

<b>Table S3.1 Leachate level limits and monitoring requirements</b>			
<b>Monitoring point reference/ Description</b>	<b>Limit</b>	<b>Monitoring frequency</b>	<b>Monitoring method</b>
W2/C5LW1 W2/C5LM2, W2/C6LW1, W2/C6NLW1, W2/C7LW1, W2/C7NLW1 On plan Westmill Landfill Site Monitoring Infrastructure WK180107 dated 06/05/08 modified 28/03/14 and including all future wells in cells 8, 9 and 10	1m above cell base*	Monthly	In Accordance with Environment Agency document LFTGN 02 September 2004 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water'
W2/C1LW1, W2/C1LM2 , W2/C1LM3, W2/C2LW1, W2/C2LM3, W2/C3LW1, , W2/C3LM3, , W2/C4LM3, W2/C4LW1 On plan Westmill Landfill Site Monitoring Infrastructure WK180107 dated 06/05/08 modified 28/03/14	2 m above cell base		
W1/C0LWN, WL/C1LWS1, W1/C2LW1A. W1/C2LW3A, W1C3LWS1, W1/C3LWN1, W1/C3LM2, W1/C4LWS, W1/C4LM2A, On plan Westmill Landfill Site Monitoring Infrastructure WK180107 dated 06/05/08 modified 28/03/14	2 m above cell base		

\*Note - A compliance limit of 2m above the cell base shall apply for each cell upon completion of pre operational condition 9.

**Table S3.2 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
LFGE 1, LFGE 2, LFGE 4, LFGE5 commissioned after 31/12/05	Oxides of Nitrogen	Gas utilisation plant	500 mg/m <sup>3</sup>	Hourly mean	Annually	As per M2, v 10, October 2013
	CO		1400 mg/m <sup>3</sup>			
	Total VOCs		1000 mg/m <sup>3</sup>			
LFGE3 commissioned between 01/01/98 and 31/12/05	Oxides of Nitrogen	Gas utilisation plant	650 mg/m <sup>3</sup>	Hourly mean	Annually	As per M2, v 10, October 2013
	CO		1500 mg/m <sup>3</sup>			
	Total VOC's		1750 mg/m <sup>3</sup>			
2 no Flares, Plan ESID 8	Oxides of Nitrogen	Landfill Gas Flares	150 mg/m <sup>3</sup>	Hourly mean	Annually	As per M2, v 10, October 2013
	CO		50 mg/m <sup>3</sup>			
	Total VOC's		10 mg/m <sup>3</sup>			
	Operational Temperature		>1000°C			
PpTek Siloxane Removal System	Oxides of Nitrogen	PpTek Siloxane Removal System	150 mg/m <sup>3</sup>	Hourly mean	Annually	As per M2, v 10, October 2013
	CO		50 mg/m <sup>3</sup>			
	Total VOC's		10 mg/m <sup>3</sup>			
	Operational Temperature		>1000°C			
Biofilter as referenced in drawing 03 reference WK236400	As per those agreed as part of improvement condition 13	Biofilter	As per those agreed as part of improvement condition 13	As per those agreed as part of improvement condition 13	As per those agreed as part of improvement condition 13	As per those agreed as part of improvement condition 13



<b>Table S3.3 Point source emissions to water (other than sewer) – emission limits and monitoring requirements</b>						
<b>Emission point Ref. &amp; Location</b>	<b>Parameter</b>	<b>Source</b>	<b>Limit (incl unit)</b>	<b>Reference Period</b>	<b>Monitoring Frequency</b>	<b>Monitoring Standard or Method</b>
W2/lagoon discharge On plan Westmill Landfill Site Monitoring Infrastructure WK180107 dated 06/05/08 modified 28/03/14	Maximum Flow	Surface water lagoon	60 l/s	Continuous	Weekly	In accordance with Environment Agency document LFTGN 02 September 2004 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water'
	Ammoniacal-Nitrogen		0.5 mg/l	Spot Sample	Monthly	
	Suspended Solids		50 mg/l	Spot Sample	Monthly	
	Oil or Grease		No significant visible trace	Continuous	Daily	

<b>Table S3.4 Point source emissions to sewer, effluent treatment plant or by tankering or other transfer off-site– emission limits and monitoring requirements</b>						
<b>Emission point Ref. &amp; Location</b>	<b>Parameter</b>	<b>Source</b>	<b>Limit (incl unit)</b>	<b>Reference Period</b>	<b>Monitoring Frequency</b>	<b>Monitoring Standard or Method</b>
Leachate Treatment Plant On Plan Surface Water Drainage and Environmental Monitoring, Drawing 10, dated 17/08/2006	Volume	Main Process Effluent	110 l/s	Continuous	Weekly	
	Ammoniacal Nitrogen		400 mg/l	Spot sample	Monthly	CEN: AB1234
	COD		1500 mg/l		Monthly	
	Sulphate		1800 mg/l		Monthly	
	Nickel		1.0 mg/l		Monthly	
	Zinc		3.0 mg/l		Monthly	

**Table S3.5 Trigger levels for emissions into groundwater and monitoring requirements**

Monitoring point reference	Parameter	Limit (including unit)	Reference Period	Monitoring frequency	Monitoring standard or method
W2/NW1	Ammoniacal-Nitrogen	0.5 (mg/l)	Spot Sample	Quarterly	In accordance with Environment Agency document LFTGN 02 September 2004 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water
	Chloride	55 (mg/l)			
	Phenol	0.00005 (µg/l)			
	Nickel	0.01 (µg/l)			
	Mecoprop	0.0004 (mg/l)			
	Toluene	0.001(mg/l)			
	M/P-Xylene	0.001(mg/l)			
W2/NW2	Ammoniacal-Nitrogen	0.5 (mg/l)	Spot Sample	Quarterly	In accordance with Environment Agency document LFTGN 02 September 2004 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water
	Chloride	55 (mg/l)			
	Phenol	0.00005 (µg/l)			
	Nickel	0.01 (µg/l)			
	Mecoprop	0.0004(mg/l)			
	Toluene	0.001(mg/l)			
	M/P-Xylene	0.001(mg/l)			
W2/NW3	Ammoniacal-Nitrogen	0.5 (mg/l)	Spot Sample	Quarterly	
	Chloride	55 (mg/l)			
	Phenol	0.00005 (µg/l)			
	Nickel	0.01 (µg/l)			
	Mecoprop	0.0004 (mg/l)			
	Toluene	0.001(mg/l)			
	M/P-Xylene	0.001(mg/l)			
W2/NW4	Ammoniacal-Nitrogen	0.5 (mg/l)	Spot Sample	Quarterly	
	Chloride	170 (mg/l)			
	Phenol	0.00005 (µg/l)			
	Nickel	0.01 (µg/l)			
	Mecoprop	0.0004 (mg/l)			
W2/NW1, W2/NW2, W2/NW3, W2/NW4, W2/NW5, W2/NW10 Onsite pan HRA1b, dated 10/03/2009	Ammoniacal-Nitrogen	0.39 (mg/l)	Spot Sample	Quarterly	
	Chloride	100 (mg/l)			
	Cadmium <sup>(1)</sup>	0.0015 (mg/l)			
	Nickel	0.025 (mg/l)			

**Table S3.5 Trigger levels for emissions into groundwater and monitoring requirements**

Monitoring point reference	Parameter	Limit (including unit)	Reference Period	Monitoring frequency	Monitoring standard or method
	Mecoprop	To be set upon completion of improvement condition 11			
	Toluene				
	Xylene				
	Phenol				
W1/WM4	Ammoniacal-Nitrogen	0.39 (mg/l)	Spot Sample	Quarterly	
	Chloride	100 (mg/l)			
	Cadmium <sup>(1)</sup>	0.0015 (mg/l)			
	Nickel	0.025 (mg/l)			
W2/NW6 On site plan HRA1b, dated 10/03/2009	Ammoniacal-Nitrogen	0.39 (mg/l)	Spot Sample	Quarterly	In accordance with Environment Agency document LFTGN 02 September 2004 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water
	Chloride	150 (mg/l)			
	Cadmium <sup>(1)</sup>	0.0015 (mg/l)			
	Nickel	0.025 (mg/l)			
	Mecoprop	To be set upon completion of improvement condition 11			
	Toluene				
	M/P-Xylene				
	Phenol				
W2/WM7	Ammoniacal-Nitrogen	0.39 (mg/l)	Spot Sample	Quarterly	
	Chloride	150 (mg/l)			
	Cadmium <sup>(1)</sup>	0.0015 (mg/l)			
	Nickel	0.025 (mg/l)			

**Table S3.6 Landfill gas in external monitoring boreholes – limits and monitoring requirements**

Monitoring point Ref. /description	Parameter	Limit (including units)*	Monitoring frequency	Monitoring standard or method
NG1, NG2, NG3, NG4, NG5, NG6, NG7, NG8, NG9, NG10, NG11, NG12, NG13, NG14, NG15, NG16, NG17 identified on Plan Surface Water Drainage & Environmental Monitoring, Drawing No 10, dated 17/08/06	Methane	1 %v/v	Monthly	As per LFTGN 07 September 2004 or as otherwise agreed in writing by the Environment Agency.
	Carbon Dioxide	4.5 %v/v		
	Oxygen	no limit		
	Atmospheric pressure	no limit		
	Differential Pressure	no limit		
	Temperature	no limit		
	Meteorological data	no limit		
W1/GM01, W1/GM02, W1/GM03, W1/GM04, W1/GM05, W1/GM06, W1/GM10, W1/GM11, W1/GM12, W1/GM13, W1/GM14, W1/GM15, W1/GM16, W1/GM17, W1/GM18, W1/GM19, W1/GM20, identified on Plan Surface Water Drainage & Environmental Monitoring, Drawing No10, dated 17/08/06	Methane	Limit to be derived upon completion of IC9	Monthly	
	Carbon Dioxide	Limit to be derived upon completion of IC9		
	Oxygen	no limit		
	Atmospheric pressure	no limit		
	Differential Pressure	no limit		
	Temperature	no limit		
	Meteorological data	no limit		

\* - The limits specified take account of the agreed background concentrations as detailed in Westmill II Working Plan, dated April 2003

**Table S3.7 Landfill gas from capped surfaces - monitoring requirements**

<b>Monitoring point Ref. /description</b>	<b>Parameter</b>	<b>Other specifications</b>	<b>Monitoring frequency</b>	<b>Monitoring Standard or method</b>
Permanently capped zone	Average methane flux and total methane emission	Where the average zone emission rate of 0.001 mg/m <sup>2</sup> /second is exceeded appropriate measures must be taken to reduce the rate.	As per LFTGN 07 September 2004*	As per LFTGN 07 September 2004 or as otherwise agreed in writing by the Environment Agency.
Temporarily capped zone	Average methane flux and total methane emission	Where the average zone emission rate of 0.1 mg/m <sup>2</sup> /second is exceeded appropriate measures must be taken to reduce the rate.	As per LFTGN 07 September 2004*	As per LFTGN 07 September 2004 or as otherwise agreed in writing by the Environment 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 S3.8 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
In waste monitoring wells	Methane Carbon Dioxide Oxygen Carbon Monoxide Hydrogen sulphide Atmospheric pressure Differential pressure Meteorological Data	Monthly	The limits specified take account of the agreed background concentrations as detailed in Westmill II Working Plan, dated April 2003	Where the oxygen concentration exceeds 5% or the % balance gas is greater than 20% an assessment of air ingress into the system shall be undertaken. Where the concentration of carbon monoxide exceeds 100ppm then further investigation shall be undertaken.
Gas collection system at well control valve and manifolds on gas system	Methane Carbon Dioxide Oxygen Carbon Monoxide Atmospheric pressure Differential pressure Gas flow rate % Balance Gas (calculated as the difference between the sum of measured gases and 100%) Valve setting	Fortnightly	In accordance with the Agency's guidance on the Management of Landfill Gas (LFTGN03)	Where the oxygen concentration exceeds 5% or the % balance gas is greater than 20% an assessment of air ingress into the system shall be undertaken. Where the concentration of carbon monoxide exceeds 100ppm then further investigation shall be undertaken.
Input to LFG Utilisation Compound	Trace gas analysis in accordance with LFTGN04.	Annually	In accordance with the Agency's guidance on the Management of Landfill Gas (LFTGN03)	The concentration of trace gas components shall be assessed against the assumptions made in the Landfill gas risk assessment and dispersion modelling.
Input to LFG Utilisation Compound	Methane Carbon Dioxide Oxygen Gas flow rate % Balance Gas (calculated as the difference between the sum measured gases and 100%)	Weekly	In accordance with the Agency's guidance on the Management of Landfill Gas (LFTGN03)	Where the oxygen concentration exceeds 5% or the % balance gas is greater than 20% an assessment of air ingress into the system shall be undertaken.

**Table S3.9 Leachate– other monitoring requirements**

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
W2/C1LW1, W2/C1LM2 , W2/C1LM3, W2/C2LW1, , W2/C2LM3, W2/C3LW1, W2/C3LM3, W2/C4LW1, W2/C4LM3, , W2/C5LW1 W2/C5LM2, W2/C6LW1, W2/C6NLW1, W2/C7LW1, W2/C7NLW1 On site plan Westmill Landfill Site Monitoring Infrastructure WK180107 dated 06/05/08 modified 28/03/14 and including all future wells in cells 8, 9 and 10	pH, Temperature, EC, NH4-N, Cl, BOD, COD, SO4, Alk, Ca, TON, TOC, K, Na, Mg, Ca,	Quarterly	In accordance with Environment Agency document LFTGN 02 September 2004 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water'	None
W2/C1LW1, W2/C1LM2 , W2/C1LM3, W2/C2LW1, , W2/C2LM3, W2/C3LW1, W2/C3LM3, W2/C4LW1, W2/C4LM3, , W2/C5LW1 W2/C5LM2, W2/C6LW1, W2/C6NLW1, W2/C7LW1, W2/C7NLW1 On site plan Westmill Landfill Site Monitoring Infrastructure WK180107 dated 06/05/08 modified 28/03/14 and including all future wells in cells 8, 9 and 10	As, Fe, Mn, Cd, Cr, Cu, Ni, Pb, Zn, Cyanide (free), Cyanide (total), Hg*, Sb, Be, Se, Sulphide, PAH, VOC*, SVOC*, mecoprop*, dichlorvos*, Tributyl tin*	Annually		
W2/C1LW1, W2/C1LM2 , W2/C1LM3, W2/C2LW1, , W2/C2LM3, W2/C3LW1, W2/C3LM3, W2/C4LW1, W2/C4LM3, , W2/C5LW1 W2/C5LM2, W2/C6LW1, W2/C6NLW1, W2/C7LW1, W2/C7NLW1 On site plan Westmill Landfill Site Monitoring Infrastructure WK180107 dated 06/05/08 modified 28/03/14 and including all future wells in cells 8, 9 and 10	Monitoring point base Screen of hazardous substances	Annually		
W1/C0LWN, WL/C1LWS1, W1/C2LW1A. W1/C2LW3A, W1C3LWS1, W1/C3LWN1, W1/C3LM2, W1/C4LWS, W1/C4LM2A, On site plan Westmill Landfill Site Monitoring Infrastructure WK180107 dated 06/05/08 modified 28/03/14	pH, temperature, EC, NH4-N, Cl, BOD, COD, SO4, total Alkalinity, Ca, TON, TOC, K, Na, Mg, Ca,	Quarterly		
W1/C0LWN, WL/C1LWS1, W1/C2LW1A. W1/C2LW3A, W1C3LWS1, W1/C3LWN1, W1/C3LM2, W1/C4LWS, W1/C4LM2A, On site plan Westmill Landfill Site Monitoring Infrastructure WK180107 dated 06/05/08 modified 28/03/14	As, Fe, Mn, Cd, Cr, Cu, Ni, Pb, Zn, MCPP Cyanide (free and total), Sb, Be, Se, SO4, PAH Screen of hazardous substances Monitoring point base	Annually		
W1/C0LWN, WL/C1LWS1, W1/C2LW1A. W1/C2LW3A, W1C3LWS1, W1/C3LWN1, W1/C3LM2, W1/C4LWS, W1/C4LM2A, On site plan Westmill Landfill Site Monitoring Infrastructure WK180107 dated 06/05/08 modified 28/03/14	Hg, VOC's, semi VOC's, DDVP, tri-butyl tin	4 yearly		

<b>Table S3.10 Surface water – other monitoring requirements</b>				
<b>Emission point reference or source or description of point of measurement</b>	<b>Parameter</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>	<b>Other specifications</b>
W2/lagoon discharge On plan Westmill Landfill Site Monitoring Infrastructure WK180107 dated 06/05/08 modified 28/03/14	pH, EC, COD, Cl	Quarterly	In accordance with Environment Agency document LFTGN 02 September 2004 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water'	None
W1/Cell 5 ditch, W1 Cell 2 dich, W1/Cell3 pipe On plan Westmill Landfill site, monitoring infrastructure, dated 06/05/2008	Temperature, DO, pH, EC, TSS, NH <sub>4</sub> -N, TON, TOC, BOD,COD,CL			

<b>Table S3.11 Groundwater – other monitoring requirements</b>				
<b>Emission point reference or source or description of point of measurement</b>	<b>Parameter</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>	<b>Other specifications</b>
W2/NM8, W2/NW9, W1/NM13 On plan Westmill Landfill Site, Monitoring Infrastructure, dated 06/05/2008	Water level, EC, Cl, pH, NH <sub>4</sub> -N,	Monthly	In accordance with Environment Agency document LFTGN 02 September 2004 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water'	None
W2/NW1, W2/NW2, W2/NW3, W2/NW4, W2/NW5, W2/NW6,W2/NW8, W2/NW9, W2/NW10 , W1/WM13 On plan Westmill Landfill Site, Monitoring Infrastructure, dated 06/05/2008	Total Alkalinity , Ca, Mg, Na, K, SO <sub>4</sub> , Fe, Mn, Cr, Cu, Ni, Pb, NO <sub>3</sub> -N, NO <sub>2</sub> -N, PO <sub>4</sub> , TON, and Zn	Quarterly		
W2/NW1, W2/NW2, W2/NW3, W2/NW4, W1/WM4 W2/NW5, W2/NW6, W1/WM7,W2/NW8, W2/NW9, W2/NW10,W1/WM11, W1/WM12, W1/WM13 On plan Westmill Landfill Site, Monitoring Infrastructure, dated 06/05/2008	Hazardous substances Monitoring point base	Annually		
W1/WM4,W1/WM7,W1/WM11,W1/WM12 On plan Westmill Landfill Site, Monitoring Infrastructure, dated 06/05/2008	Water level, Temperature, EC, NH <sub>4</sub> -N, Cl,TON, TOC,COD, SO <sub>4</sub> , Total Alkalinity (as CaCO <sub>3</sub> at pH 4.5), Na, K, Ca, Mg, Fe, Mn	Quarterly		
W1/WM4,W1/WM7,W1/WM11,W1/WM12 On plan Westmill Landfill Site, Monitoring Infrastructure, dated 06/05/2008	As, Cd, Cr, Cu , Ni, Pb, Zn Hazardous Substances Monitoring Point Bases	Annually		



<b>Table S3.12 Process monitoring requirements</b>				
<b>Emission point reference or source or description of point of measurement</b>	<b>Parameter</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>	<b>Other specifications</b>
A1 – biofilter as shown on Drawing 03 (soil repair centre – drainage and site infrastructure)	Temperature	As per frequencies agreed as part of improvement conditions 13	As per monitoring standard agreed as part of Improvement conditions 13	Biofilter shall be checked and maintained to ensure appropriate temperature and moisture content on a daily basis. Monitoring equipment shall be available on-site and used as required to ensure compliance with this permit.
	Moisture content			
	Flow rate			
	Nutrient levels			
	Contaminant elimination			

<b>Table S3.13 Other Monitoring requirements – contaminated soil</b>				
<b>Emission point reference or source or description of point of measurement</b>	<b>Parameter</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>	<b>Other specifications</b>
Soil biopiles	Total Petroleum Hydrocarbons (TPH) Polycyclic Aromatic Hydrocarbons (PAH's) Pentachlorophenol (PCP) Note 1 Total Volatile Organic Compounds (VOC's) Phenols pH	Each completed batch of treated soil shall be sampled	-	Laboratory must be accredited to EN ISO/IEC ISO17025:2000 for the analysis specified Samples to be obtained using standard sampling procedures as per BS 812

Note 1: Only if PCP contaminated soils are received for treatment

## Schedule 4 - Reporting

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

<b>Table S4.1 Reporting of monitoring data</b>			
<b>Parameter</b>	<b>Emission or monitoring point/reference</b>	<b>Reporting period</b>	<b>Period begins</b>
Leachate levels As required by condition 3.5.1	W2/C1LW1, W2/C1LM2 , W2/C1LM3, W2/C2LW1, W2/C2LM3, W2/C3LW1, W2/C3LM3, W2/C4LW1, W2/C4LM3, W2/C5LW1, W2/C5LM2, W2/C6LW1, W2/C6NLW1, W2/C7LW1, W2/C7NLW1  W1/C0LWN, W1/C1LWS1, W1/C2LW1A, W1/C2LW3A, W1/C3LWS1, W1/C3LWN1, W1/C3LM2, W1/C4LWS, W1/C4LM2A,	Every 3 months	1 January
Emissions to air Parameters as required by condition 3.5.1	LFGE1, LFGE2, LFGE3, LFGE4, LFGE5, LFGF1, LFGF2, PpTex System, Biofilter	Every 12 months	1 January
Emissions to water Parameters as required by condition 3.5.1	W2/lagoon discharge	Every 3 months	1 January
Emissions to sewer, effluent treatment plant, etc. Parameters as required by condition 3.5.1	Leachate Treatment Plant	Every 3 months	1 January
Groundwater Parameters as required by condition 3.5.1	W2/NW1, W2/NW2, W2/NW3, W2/NW4, W1/WM4, W2/NW5, W2/NW6, W1/WM7, W2/NW10	Every 3 Months	1 January
Landfill gas lateral migration Parameters as required by condition 3.5.1	NG1, NG2, NG3, NG4, NG5, NG6, NG7, NG8, NG9, NG10, NG11, NG12, NG13, NG14, NG15, NG16, NG17, W1/GM01, W1/GM02, W1/GM03, W1/GM04, W1/GM05, W1/GM06, W1/GM10, W1/GM11, W1/GM12, W1/GM13, W1/GM14, W1/GM15, W1/GM16, W1/GM17, W1/GM18, W1/GM19, W1/GM20	Every 3 months	1 January
Landfill gas surface emissions Parameters as required by condition 3.5.1	Permanently capped zone, temporary capped zone	Every 12 months	1 January

<b>Table S4.1 Reporting of monitoring data</b>			
<b>Parameter</b>	<b>Emission or monitoring point/reference</b>	<b>Reporting period</b>	<b>Period begins</b>
Other Landfill gas monitoring Parameters as required by condition 3.5.1 Trace gases	In waste monitoring wells  Input to LFG Utilisation Compound	Every 3 months  Annually	1 January
Other leachate monitoring Parameters as required by condition 3.5.1          Hazardous substances Screen Monitoring point base	W2/C1LW1, W2/C1LM2, W2/C1LM3, W2/C2LW1, W2/C2LM3, W2/C3LW1, W2/C3LM3, W2/C4LW1, W2/C4LM3, W2/C5LW1, W2/C5LM2, W2/C6LW1, W2/C6NLW1, W2/C7LW, W2/C7NLW1  W1/C0LWN, WL/C1LWS, W1/C2LW1A, W1/C2LW3A, W1C3LWS1, W1/C3LWN1, W1/C3LM2, W1/C4LWS, W1/C4LM2A,	Every 3 months          Annually Annually	1 January
Other surface water monitoring Parameters as required by condition 3.5.1	W2/lagoon discharge, W1Cell 5 ditch, W1/Cell 2 ditch, W1/Cell 3 pipe	Every 3 months	1 January
Other groundwater monitoring Parameters as required by condition 3.5.1 Hazardous substances screen Monitoring point base	W2/NW1, W2/NW2, W2/NW3, W2/NW4, W1/WM4, W2/NW5, W2/NW6, W1/WM7, W2/NW8, W2/NW9, W2/NW10, W1WM11, W1WM12, W1WM13	Every 12 months	1 January
Other monitoring requirements – contaminated soils Parameters as required by condition 3.5.1.	Biopile – Composite soil sample Total Petroleum Hydrocarbons (TPH), Polycyclic Aromatic Hydrocarbons (PAHs), Pentachlorophenol (PCP) (see Note 1), Total Volatile Organic Compounds (VOC's), Phenols and pH.	Every 3 months	1 January, 1 April, 1 July, 1 October
Process monitoring requirements Parameters as required by condition 3.5.1.	Biofilter - moisture content, flow rate, nutrient levels, contaminant elimination.	Every 3 months	1 January, 1 April, 1 July, 1 October

Note 1: Only if PCP contaminated soils are treated at STF.

<b>Table S4.2: Annual production/treatment</b>	
Leachate: Disposed of offsite; Disposed of to any onsite effluent treatment plant; Recirculated into the waste mass.	Cubic metres/year
Surface water and/ or groundwater: Disposed of offsite; 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

<b>Table S4.3 Performance parameters</b>		
<b>Parameter</b>	<b>Frequency of assessment</b>	<b>Units</b>
Energy usage	Annually	MWh
Water usage	Annually	tonnes

<b>Table S4.4 Reporting Forms</b>		
<b>Media/parameter</b>	<b>Reporting Format</b>	<b>Date of Form</b>
Leachate	Form leachate 1 or other reporting format to be agreed in writing with the Environment Agency	24/11/14
Air	Form Air 1 or other reporting format to be agreed in writing with the Environment Agency	24/11/14
Controlled water	Form Water 1 or other reporting format to be agreed in writing with the Environment Agency	24/11/14
Groundwater	Form Groundwater 1 or other reporting format to be agreed in writing with the Environment Agency	24/11/14
Sewer	Form Sewer 1 or other reporting format to be agreed in writing with the Environment Agency	24/11/14
Landfill gas	Form LFG 1 or other reporting format to be agreed in writing with the Environment Agency	24/11/14
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	24/11/14
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	24/11/14
Waste Return	Waste Return Form RATS2E	--
Landfill topographical surveys and interpretation	Reporting format to be agreed in writing with the Environment Agency	--
Processing monitoring	Reporting format to be agreed in writing with the Agency	--

## Schedule 5 - Notification

This page outlines the information that the operator must provide.

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

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

### Part A

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

<b>(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution</b>	
<b>To be notified immediately</b>	
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>(b) Notification requirements for the breach of a limit</b>	
<b>To be notified immediately</b>	
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	

<b>Time periods for notification following detection of a breach of a limit</b>	
<b>Parameter</b>	<b>Notification period</b>

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

### Part B to be supplied as soon as practicable

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

<b>Name*</b>	
<b>Post</b>	
<b>Signature</b>	
<b>Date</b>	

\* authorised to sign on behalf of the operator

## Schedule 6 - Interpretation

“*accident*” means an accident that may result in pollution.

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

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

“*Background concentration*” means such concentration of that substance as is present in:

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

“*Cell layout drawing*” means:

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

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

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

- The results of all testing required by the CQA programme - this must include the records of any

failed tests with a written explanation, details of the remedial action taken, referenced to the appropriate secondary testing;

- Plans showing the location of all tests;
- “As-built” plans and sections of the works;
- Copies of the site engineer’s daily records;
- Records of any problems or non-compliances and the solution applied;
- Any other site specific information considered relevant to proving the integrity of the New Cell or Landfill Infrastructure;
- Validation by a qualified person that all of the construction has been carried out in accordance with the Construction Proposals.

“D” means a disposal operation provided for in Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“emissions to land” includes emissions to groundwater.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2010 No. 675 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

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

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

“hazardous waste” has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005 No. 894, the Hazardous Waste (Wales) Regulations 2005 No. 1806 (W.138), the List of Wastes (England) Regulations 2005 No. 895 and the List of Wastes (Wales) Regulations 2005 No. 1820 (W.148).

“hazardous property” has the meaning given in Schedule 3 of the Hazardous Waste (England and Wales) Regulations 2005 No. 894 and the Hazardous Waste (Wales) Regulations 2005 No. 1806 (W.138).

“Industrial Emissions Directive” means DIRECTIVE 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions.

“Landfill Infrastructure” means any specified element of the:

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



- landfill gas management systems;
- lining within the installation.

within the site.

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

“*LFTGN 05*” means Environment Agency Guidance for monitoring enclosed landfill gas flares, September 2004.

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

“*MCERTS*” means the Environment Agency’s Monitoring Certification Scheme.

“*Medicinal product*” means any medicine licensed by the Medicines and Healthcare products Regulatory Agency (MHRA) of 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.

*"Pests"* means Birds, Vermin and Insects.

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

*"R"* means a recovery operation provided for in Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

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

*"STF"* means Soil Treatment Facility

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

*"Waste Framework Directive" or "WFD"* means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste.

*"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.

# Schedule 7 – Site Plan

