

# Permit with introductory note

## The Environmental Permitting (England & Wales) Regulations 2010

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Waste Recycling Group (Central) Limited

Sutton Courtenay (Phase 3) Landfill Site

Sutton Courtenay Office

Appleford Sidings

Abingdon

Oxfordshire

OX14 4PW

### **Permit number**

EPR/TP3330AT

# Sutton Courtenay (Phase 3) Landfill Site

## Permit number EPR/TP3330AT

### Introductory note

#### This introductory note does not form a part of the permit

The main features of the permit are as follows.

The permit is granted to Waste Recycling Group (Central) Limited to operate an installation carrying out activities covered by the description in Section 5.2 Part A(1)(a) in Part 1 to Schedule 1 of the Environmental Permitting Regulations: The disposal of waste in a landfill for non-hazardous waste.

The Sutton Courtenay Site is situated approximately 13km to the south of the city of Oxford, within the County of Oxfordshire and the regional District of the Vale of the White Horse. The Phase 3 Landfill is centred on an approximate National Grid Reference of SU 51468 93895. The Phase 3 site will occupy approximately 11.4 hectares. The site lies 1km immediately to the north of the former Didcot Power Station, and between the villages of Sutton Courtenay and Appleford; 1.6km northwest and 1.25km northeast respectively. The site is accessed via Corridor Road.

The Phase 3 Landfill will occupy quarry void resulting from historic gravel extraction (Sutton Courtenay North Quarry) to the north of the existing separately regulated waste facilities: the non-hazardous Sutton Courtenay Landfill Site; composting facility and Materials Recycling Facility (MRF) & Transfer Station.

The site will be engineered with a containment system comprising basal lining, sidewall lining, capping and leachate monitoring/collection. The phasing of the site will consist of Phases 1 to 4 which will be progressively constructed, filled, capped and restored.

The proposed non-hazardous (non-biodegradable) wastes to be deposited at the landfill consist of excavation, construction/demolition wastes and similar industrial wastes with low level of contamination.

The overall capacity of the landfill installation is 1.14 million cubic metres. The Permit limits the disposal of waste to 450,000 tonnes per year.

The main emissions from the site are likely to be leachate, surface water, dust, odour, litter and mud.

The sensitive receptors include groundwater in the superficial deposits to the north of the site boundary, the River Thames with a direct conceptual link from the site through the superficial deposits to the river and human receptors.

The site will be operated in accordance with an Environmental Management System accredited to ISO14001.

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

Status log of the permit		
Description	Date	Comments
Application EPR/TP3330AT/A001	Duly made 12/05/15	Application for the disposal of waste in a landfill for non-hazardous waste and landfill restoration.
Additional information received	10/07/15	Response to Schedule 5 Notice dated 15/06/2015.
	15/07/15	Noise impact assessment received
	04/08/15	Revised engineering drawing for leachate drainage received.
	09/12/15	Response to Schedule 5 Notice dated 29/10/2015.

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Permit determined EPR/TP3330AT (Billing ref: TP3330AT)	09/06/16	Permit issued to Waste Recycling Group (Central) Limited.

End of introductory note

# Permit

## The Environmental Permitting (England and Wales) Regulations 2010

### Permit number

EPR/TP3330AT

The Environment Agency hereby authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2010

**Waste Recycling Group (Central) Limited** (“the operator”),

whose registered office is

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

company registration number 04000033

to operate an installation at

**Sutton Courtenay (Phase 3) Landfill Site  
Sutton Courtenay Office  
Appleford Sidings  
Abingdon  
Oxfordshire  
OX14 4PW**

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

Name	Date
Claire Roberts	09/06/2016

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 and those drawn to the attention of the operator as a result of complaints; and
  - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.
- 1.1.4 The operator shall comply with the requirements of an approved competence scheme.

### 1.2 Finance

- 1.2.1 The financial provision for meeting the obligations under this permit shall be as set out in the Deed of Performance dated 17 October 2007 between the Waste Recycling Group Limited (now known as FCC Environment (UK) Limited) and the Environment Agency as varied by a Deed of Variation dated 15 October 2010 (as varied by further Deeds of Variation from time to time). The operator shall accordingly ensure that the permit is and remains throughout its subsistence a permit to which the Deed relates 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 The operator shall:
- (a) take appropriate measures to ensure that energy is used efficiently in the activities;
  - (b) Review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
  - (c) Implement any appropriate measures identified by a review.

### 1.4 Efficient use of raw materials

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

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

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

1.5.1 The operator shall:

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

## **2 Operations**

### **2.1 Permitted activities**

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

### **2.2 The site**

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

### **2.3 Operating techniques**

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

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

### **2.4 Pre-operational conditions**

2.4.1 The activities shall not be brought into operation until the measures specified in schedule 1 table S1.3A have been completed.

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

## **2.5 Landfill Engineering**

- 2.5.1 No construction of any new cell of the landfill shall commence until the operator has submitted construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.
- 2.5.2 Where the operator proposes to construct any new cell other than the first cell, but proposes no change from the design of the most recently approved cell which could have any impact on the performance of any element of the design, no construction of the new cell shall commence until the operator has submitted a cell layout drawing and the Environment Agency has confirmed that it is satisfied with the cell layout drawing.
- 2.5.3 The construction of a new cell shall take place only in accordance with the approved construction proposals unless:
- (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or
  - (b) a change has otherwise been agreed in writing by the Environment Agency.
- 2.5.4 No disposal of waste shall take place in a new cell until the operator has submitted a CQA Validation Report and the Environment Agency has confirmed that it is satisfied with the CQA Validation Report.
- 2.5.5 No construction of landfill infrastructure shall commence until the operator has submitted relevant construction proposals or a written request to use previous construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.
- 2.5.6 The construction of the landfill infrastructure shall take place only in accordance with the approved construction proposals unless:
- (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or
  - (b) a change has otherwise been agreed in writing by the Environment Agency.
- 2.5.7 The operator shall submit a CQA Validation Report as soon as practicable following the construction of the relevant landfill infrastructure.
- 2.5.8 Where pollution controls are immediately necessary to prevent an incident or accident, then conditions 2.5.5 and 2.5.6 do not apply and the relevant landfill infrastructure may be constructed, provided that the construction proposals are submitted to the Environment Agency as soon as practicable.
- 2.5.9 For the purposes of conditions 2.5.1, 2.5.2, 2.5.4 and 2.5.5, the Environment Agency shall be deemed to be satisfied where it has not, within the period of four weeks from the date of receipt of the relevant construction proposals or CQA Validation Report, either:
- (a) confirmed whether or not it is satisfied; or
  - (b) informed the operator that it requires further information.
- 2.5.10 Where the Environment Agency has required further information under condition 2.5.9(b), the Environment Agency shall be deemed to be satisfied where it has not, within the period of four weeks from the date of receipt of the further information, either:
- (a) confirmed whether or not it is satisfied; or
  - (b) informed the operator that it requires further information.

## **2.6 Waste acceptance**

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

- (b) they are non- hazardous waste, and
- (c) they are not whole used tyres, and
- (d) they are not shredded used tyres, and
- (e) they are not liquid waste (including waste waters), and
- (f) they are not chemical substances from research and development or teaching activities, for example laboratory residues, which are unidentified and/or which are new and whose effects on man and/or the environment are unknown, and
- (g) all the relevant waste acceptance procedures have been completed, and
- (h) they fulfil the relevant waste acceptance criteria, and
- (i) they have not been diluted or mixed solely to meet the relevant waste acceptance criteria, and
- (j) they are wastes which have been treated, except for: inert wastes for which treatment is not technically feasible; or it is waste other than inert waste and treatment would not reduce its quantity or the hazards which it poses to human health or the environment, and
- (k) they are wastes with a code beginning with 07 05 and 16 03, they shall exclude waste medicinal products and pharmaceutically active waste materials arising from their manufacture.

2.6.2 Wastes shall only be accepted for restoration where:

- (a) they are listed in schedule 2, table S2.2, and
- (b) they are accepted in accordance with a restoration plan approved in writing by the Environment Agency.

2.6.3 The operator shall:

- (a) visually inspect without unloading it, waste that is not in an enclosed container or enclosed vehicle on arrival at the landfill and waste at the point of deposit; and
- (b) be satisfied that the waste conforms to the requirements of condition 2.6.1.

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

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

2.6.6 The total quantity of waste that shall be deposited in the landfill shall be limited by the pre-settlement levels shown on drawing 1673/1/005.

2.6.7 The quantity of waste that is deposited in the landfill in any year shall not exceed the limits in schedule 1, table S1.4.

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

## **2.7 Leachate levels**

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

## **2.8 Closure and aftercare**

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



## **2.9 Landfill gas management**

2.9.1 The operator shall take appropriate measures, including, but not limited to, those specified in any approved landfill gas management plan, to:

- (a) control the migration of landfill gas.

## **3 Emissions and monitoring**

### **3.1 Emissions to water, air or land**

3.1.1 The limits in schedule 3 shall not be exceeded.

3.1.2 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3, table S3.2.

3.1.3 The operator shall prevent the input of any hazardous substances from the activities into groundwater.

3.1.4 The operator shall submit to the Environment Agency a review of the Hydrogeological Risk Assessment:

- (a) between nine and six months prior to the sixth anniversary of the granting of the permit, and
- (b) between nine and six months prior to every subsequent six years after the sixth anniversary of the granting of the permit.

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

3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.2.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
- (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

### **3.3 Odour**

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

3.3.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;

- (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

### **3.4 Noise and vibration**

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

### **3.5 Monitoring**

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring and any other actions specified in the following tables in schedule 3 to this permit:
  - (a) Leachate specified in tables S3.1 and S3.7;
  - (b) Point source emissions specified in table S3.2;
  - (c) Groundwater specified in tables S3.3 and S3.5;
  - (d) Landfill gas specified in tables S3.4 and S3.6; and
  - (e) Surface water specified in table S3.8.
- 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.5.3 A topographical survey of the site referenced to ordnance datum shall be carried out and shall be used to produce a plan of a scale adequate to show the surveyed features of the site:
  - (a) annually, and
  - (b) prior to the disposal of waste in any new cell or new development area of the landfill, and
  - (c) following closure of the landfill or part of the landfill.

### **3.6 Pests**

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

- (b) implement the pests management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

## **4 Information**

### **4.1 Records**

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

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

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

### **4.2 Reporting**

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

4.2.2 A report or reports on the performance of the activities over the previous year ('the annual report') shall be submitted to the Environment Agency by 31st January each year or such other date as may be agreed in writing by the Agency, with the exception of 4.2.2(c) that must be provided by the end of February each year. The report(s) shall include as a minimum:

- (a) a review of the results of the monitoring and assessment carried out in accordance with this permit against the relevant assumptions, parameters and results in the risk assessments submitted in relation to this installation and any agreed amendments thereto. The review will include written descriptions of the improvements made to operational performance during the year, action plans developed and planned improvements for the coming year;
- (b) the energy consumed at the site, reported in the format set out in schedule 4, table S4.3
- (c) the annual production/treatment set out in schedule 4, table S4.2;
- (d) the topographical surveys required by condition 3.5.3 other than those submitted as part of a CQA validation report;
- (e) the volumetric difference (reported in cubic metres) between the most recent topographical survey and the previous annual topographical survey i.e. the additional volume of the landfill void that is occupied by waste;

- (f) an assessment of the settlement behaviour of the landfill body based on the difference between the most recent topographical survey and previous annual topographical survey for the areas of the landfill which did not receive waste between the surveys;
- (g) a calculation of the remaining capacity (reported in cubic metres) derived from the pre-settlement contours and the most recent topographical survey;
- (h) a plan(s) ('the monitoring and extraction point plan – MEPP') showing the locations of leachate and landfill gas extraction and all monitoring points.

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

- (a) in respect of the parameters and emission points specified in schedule 4, table S4.1;
- (b) using the forms specified in schedule 4, table S4.4 or other reporting format as agreed in writing with the Environment Agency; and
- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.

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

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

## 4.3 Notifications

4.3.1 In the event:

- (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
  - (i) inform the Environment Agency,
  - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
  - (iii) take the measures necessary to prevent further possible incidents or accidents;
- (b) in the event of a breach of any permit condition the operator must immediately—
  - (i) inform the Environment Agency, and
  - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
- (c) in the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.

4.3.2 Any information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

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

Where the operator is a registered company:

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

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

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

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

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

## **4.4 Interpretation**

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

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately", in which case it may be provided by telephone.

# Schedule 1 – Operations

Table S1.1 activities				
Activity reference	WFD Annex I and II operations (where applicable)	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
A1	D5 –Specially engineered landfill and R10 – Land treatment resulting in benefit to agriculture or ecology	Section 5.2 Part A(1) (a) , The disposal of waste in a landfill.	Landfill for non-hazardous waste and landfill restoration	Receipt, handling, storage and disposal of wastes, consisting of the types and quantities specified in conditions 2.6, as an integral part of landfilling.
Directly Associated Activities				
A2	D6 – release to water body except seas/ oceans	-	Discharges of site drainage from the landfill.	From surface water management system to point of entry to controlled waters.
A3	N/A	-	Storage of fuel for operation of plant and equipment.	Fuel storage tank.

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application EPR/TP3330AT/A001	Risk management measures proposed in tables 2 to 6 of the H1 Assessment, 1673/R/005/01, in response to section 6 – environmental risk assessment, Part B2 of the application form and section 3b, table 3b – general requirements, Part B3 of the application form.  Dust Management Plan, Appendix A, of the H1 Assessment, 1673/R/005/01, in response to section 6 – environmental risk assessment, Part B2 of the application form.	12/2/15
Application EPR/TP3330AT/A001	Technical Standards (ESID report), 1673/R/004/01, sections 1.3.4, 2.1.4 – 2.1.8, 2.1.11, 2.2.2, 2.2.3, 2.2.4, 2.2.6 – 2.2.8, 2.2.10 – 2.2.15, 2.4.3, 2.5.1 – 2.5.5, 2.6.1, 2.6.2, 2.6.4, 2.6.5, 3.5.11 and 3.5.12 in response to section 3a – technical standards, Part B3 of the application form.  Landfill Gas Risk Assessment, 2025/R/009-01, sections 2.2.14 (excluding reference to 10% TOC limit), 2.2.15, 3.1.2, 3.1.3, 3.2.1, 3.2.2, 3.3 to 3.5. in response to section 2, Table 2 – Point source emissions to air, Part B3 of the application form.	12/2/15
Response to Schedule 5 Notice dated 15/06/15	Response to questions:  2. H1 assessment – noise, litter, odour and dust.  3. Waste acceptance procedures - high Sulphate wastes, TOC limit, compliance testing, waste types and waste inputs for restoration.	10/07/15

Table S1.2 Operating techniques		
Description	Parts	Date Received
	<p>4. Emissions and monitoring report – in-waste gas monitoring, Hydrogen Sulphide monitoring, groundwater compliance limits, surface water compliance limit and leachate level monitoring.</p> <p>Revised Waste acceptance, 1673/R/006/02, sections 2.2, 2.3 and 2.4.</p> <p>Waste Acceptance Criteria, Appendix B, of the Waste acceptance, 1673/R/006/01.</p> <p>Waste Acceptance Limits proposed for residue from waste processing, Arsenic and Mercury and Total Organic Content (TOC) but excluding reference to 15% increase in TOC contained in Appendix C of the Waste acceptance, 1673/R/006/02.</p> <p>Revised Emissions and Monitoring Report, 1673/R/007-2, sections 2.1 to 6.1.</p>	
Response to Schedule 5 Notice dated 29/10/15	<p>Response to question 2 on waste acceptance procedure – confirmation of percentage of wastes that will be soil and procedure for achieving TOC limit of 10%, with 70% of samples below 6% TOC.</p> <p>Revised design for leachate drainage system in response to question 1 (a). <i>(This operating technique is applicable to Phase 1 only as shown on the phasing plan 1673/1/004).</i></p>	09/12/15

<b>Table S1.3A Pre-operational measures</b>	
<b>Reference</b>	<b>Pre-operational Measures</b>
PO1	<p>The operator shall install gas monitoring wells, GW27, GW28, GW29 and GW30, as shown on the Environmental Monitoring Plan - 16/73/1/012, into the base of the drift deposits overlying the Gault clay deposit. The locations of the monitoring points shall be reviewed to ensure they are located away from areas where potential off-site pathways exist and from the influence of adjacent landfill site.</p> <p>Following the installation of the gas monitoring wells the operator shall:</p> <ul style="list-style-type: none"> <li>• monitor the wells as detailed in table S3.4 to collect a statistically significant data set (covering a minimum period of 6 months collected every 2 weeks);</li> <li>• establish the background gas concentrations for Methane and Carbon Dioxide; and</li> <li>• propose compliance limits for Methane and action levels for Methane and Carbon Dioxide in accordance with the Industry Code of Practice on Perimeter Soil Gas Emission Criteria and Management and Environment Agency position statement on Industry code of practice on perimeter soil gas.</li> </ul> <p>The operator shall submit a written report on the installed gas monitoring wells and compliance limits for Methane and action levels for Methane and Carbon Dioxide to the Environment Agency for approval.</p>

<b>Table S1.3B Pre-operational measures for future development</b>		
<b>Reference</b>	<b>Operation</b>	<b>Pre-operational Measures</b>
PO2	Waste deposit in future phases	<p>Three months prior to the construction of phase 2 as shown on the phasing plan 1673/1/004 the operator shall review the performance of the leachate drainage layer for Phase 1 and submit a written report of the review to the Environment Agency. The review shall justify the design for leachate drainage infrastructure for future cells, and shall consider as a minimum:</p> <ul style="list-style-type: none"> <li>• An assessment of leachate quality data in comparison to the assumed constraints in the HRA [1673/R/008/01] and in comparison to background groundwater quality/ environmental assessment levels;</li> <li>• An assessment of leachate production within the waste mass, including evidence of leachate build up, leachate volumes and the need to pump/manage leachate to maintain levels, and a comparison to rainfall data;</li> <li>• An assessment of flow mechanisms within the waste mass based on in-situ waste physical properties, such as waste porosity, field capacity and permeability;</li> <li>• Site water balance calculations (short and long term) incorporating relevant new data obtained from monitoring phase 1;</li> <li>• An assessment of cap stability in relation to saturated waste conditions associated with a potential leachate level rise where this is applicable;</li> <li>• Any other relevant and new information that can inform the design of future drainage layers;</li> <li>• Any proposed amendments to the existing drainage layer design with appropriate justification.</li> </ul> <p>You must design the subsequent phases as approved by the Environment Agency.</p>



<b>Table S1.4 Annual waste input limits</b>	
<b>Category</b>	<b>Limit Tonnes/ Year</b>
Non-hazardous waste	450,000
Waste for restoration	283,140
Total	450,000

## Schedule 2 – List of permitted wastes

Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste	
Waste code	Description
<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 non-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
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>10</b>	<b>Wastes from thermal processes</b>
<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
<b>10 08</b>	<b>wastes from other non-ferrous thermal metallurgy</b>
10 08 09	other slags
<b>10 11</b>	<b>wastes from manufacture of glass and glass products</b>
10 11 12	waste glass other than those mentioned in 10 11 11
<b>10 12</b>	<b>wastes from manufacture of ceramic goods, bricks, tiles and construction products</b>
10 12 06	discarded moulds
10 12 08	waste ceramics, bricks, tiles and construction products (after thermal processing)
<b>10 13</b>	<b>wastes from manufacture of cement, lime and plaster and articles and products made from them</b>
10 13 14	waste concrete and concrete sludge
<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 07	glass packaging
<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>

<b>Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste</b>	
<b>Waste code</b>	<b>Description</b>
16 01 20	glass
<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 02	glass
<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 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>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 12</b>	<b>wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified</b>
19 12 05	glass
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
<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 01</b>	<b>separately collected fractions (except 15 01)</b>
20 01 02	glass
<b>20 02</b>	<b>garden and park wastes (including cemetery waste)</b>
20 02 02	soil and stones

<b>Table S2.2 Permitted waste types for restoration</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>
01 04	wastes from physical and chemical processing of non-metalliferous minerals
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	waste sand and clays
17 05	soil (excluding excavated soil from contaminated sites), stones and dredging spoil
17 05 04	soil and stones other than those mentioned in 17 05 03
17 05 06	dredging spoil other than those mentioned in 17 05 05
<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>
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 09	minerals (for example sand, stones)
19 13	wastes from soil and groundwater remediation
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>
20 02	garden and park wastes (including cemetery waste)
20 02 02	soil and stones

## 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 standard and method</b>
<b>Operational Cells or Phases</b> (Any cells or phases that do not have a final engineered cap agreed in accordance with the landfill engineering condition, 2.5)			
Leachate compliance and monitoring points LMP01, LMP02, LMP03 & LMP04 on Plan 1673/1/012	46.5 mAoD*	Monthly	As specified in Environment Agency Guidance TGN02 (February 2003) or such other subsequent guidance as may be agreed in writing with the Environment Agency. Or as otherwise agreed with the Agency as part of a leachate monitoring plan.
<b>Non Operational Cells or Phases</b> (Any cells or phases that have a final engineered cap agreed in accordance with the landfill engineering condition, 2.5)			
N/A	No limit	Quarterly	As specified in Environment Agency Guidance TGN02 (February 2003) or such other subsequent guidance as may be agreed in writing with the Environment Agency. Or as otherwise agreed with the Agency as part of a leachate monitoring plan.
*Leachate level monitoring data from the first phase to be provided as part of compliance with the pre-operational measure for future development, PO2 condition in table S1.3B.			

<b>Table S3.2 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>
SWD01 identified on Plan 1673/1/012	Ammoniacal Nitrogen	Surface water drainage	2.0 mg/l	Spot Sample	Monthly	Monitoring to be carried out in accordance with Environment Agency Guidance Document 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water (LFTGN02), unless otherwise agreed in writing with the Agency.
	Chloride		150 mg/l	Spot Sample	Monthly	

<b>Table S3.3 Groundwater – emission limits and monitoring requirements</b>					
<b>Monitoring point reference</b>	<b>Parameter</b>	<b>Limit* (including unit)</b>	<b>Reference Period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
Downstream Lower Greensand boreholes - GW11 & GW12 identified on Plan 1673/1/012	Cadmium	0.001 mg/l	Spot Sample	Quarterly	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u>risk assessments for your environmental permit (www.gov.uk)</u> or such other subsequent guidance as may be agreed in writing with the Environment Agency.
	Sulphate	2000 mg/l			
	Ammoniacal Nitrogen	15.2 mg/l			
Proposed downstream boreholes for shallow drift deposits above Gault Clay GW29** and GW30** identified on Plan 1673/1/012	Cadmium	0.001 mg/l		Monthly for the first 12 months then quarterly	
	Sulphate	2000 mg/l			
	Ammoniacal Nitrogen	15.2 mg/l			

\*Limits to be reviewed following 12 months of site specific data collection.  
\*\* Proposed combined groundwater and gas monitoring points.

<b>Table S3.4 Landfill gas in external monitoring boreholes – limits and monitoring requirements</b>				
<b>Monitoring point Ref. /description</b>	<b>Parameter</b>	<b>Limit (including units)</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
GW27, GW28, GW29 & GW30 identified on Plan 1673/1/012	Methane	as approved in accordance with PO1 in table S1.3A	Every 2 weeks	As per LFTGN03 (September 2004) or such other subsequent guidance as may be agreed in writing with the Environment Agency.  Record whether the ground is: waterlogged frozen snow covered
	Carbon Dioxide	no limit		
	Oxygen	no limit		
	Atmospheric pressure	no limit		
	Differential Pressure	no limit		

<b>Table S3.5 Groundwater – other monitoring requirements</b>			
<b>Monitoring Point Ref./Description</b>	<b>Parameter</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
Up gradient MEPP	Water level, Electrical Conductivity, Chloride, Ammoniacal Nitrogen, Cadmium, Sulphate, pH, COD, BOD	Quarterly	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u>risk assessments for your environmental permit</u> ( <a href="http://www.gov.uk">www.gov.uk</a> ) or such other subsequent guidance as may be agreed in writing with the Environment Agency.
	Total Alkalinity, Magnesium, Potassium, Total Sulphates, Calcium, Sodium, Chromium, Copper, Iron, Arsenic, Lead, Nickel, Zinc, Manganese	Annually	
	Hazardous substances	Annually for first six years of operation	
Down or cross gradient MEPP	Water level, Electrical Conductivity, Chloride, Ammoniacal Nitrogen, pH, COD, BOD	Quarterly	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u>risk assessments for your environmental permit</u> ( <a href="http://www.gov.uk">www.gov.uk</a> ) or such other subsequent guidance as may be agreed in writing with the Environment Agency.  After the initial 6 year monitoring period for hazardous substances, if the results of quarterly or annual monitoring suggest an increase in contamination, the operator shall also undertake a full leachate hazardous substances screen.
	Total Alkalinity, Magnesium, Potassium, Total Sulphates, Calcium, Sodium, Chromium, Copper, Iron, Arsenic, Lead, Nickel, Zinc, Manganese	Annually	
	Hazardous substances detected in leachate	Annually for first six years of operation then every two years	
MEPP	Base of monitoring point (mAoD)	Annually	

<b>Table S3.6 Landfill gas – other monitoring requirements</b>				
<b>Monitoring Point Ref. /Description</b>	<b>Parameter</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>	<b>Other specifications</b>
In waste gas monitoring boreholes or sealed leachate wells or sacrificial gas extraction system	Methane Carbon Dioxide Oxygen Carbon Monoxide Differential pressure Atmospheric pressure	Monthly	Calibrated handheld monitoring instrument	For cells or phases which have no active gas extraction.
	Hydrogen Sulphide	Quarterly	Calibrated handheld monitoring instrument or Tedlar Bag sample in accordance with LFTGN04 (v. 3.0 2010) or other such subsequent guidance as may be agreed in writing with the Environment Agency or a method agreed with the Environment Agency.	For cells or phases which have no active gas extraction.  Concentrations of Hydrogen Sulphide shall be assessed in accordance with the gas and odour management plans



<b>Table S3.7 Leachate – other monitoring requirements</b>				
<b>Monitoring point reference or description</b>	<b>Parameter</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>	<b>Other specifications</b>
<b>Operational Cells or Phases</b> (Any cell or phases that do not have a final engineered cap agreed in accordance with condition 2.5)			At leachate compliance point as listed in table S3.1.  As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u><a href="#">risk assessments for your environmental permit (www.gov.uk)</a></u> or such other subsequent guidance as may be agreed in writing with the Environment Agency.	
MEPP	pH, EC, Total Alkalinity, Ammoniacal Nitrogen, Chloride, COD, BOD, Cadmium, Chromium, Copper, Lead, Nickel, Iron, Arsenic, Magnesium, Potassium, Total Sulphates, Calcium, Sodium, Zinc, Manganese	Monthly		None
MEPP	Hazardous substances	6 monthly		None
MEPP	Depth to base (mAoD)	Annually		None
<b>Non Operational Cells or Phases</b> (Any cell or phases that have a final engineered cap agreed in accordance with condition 2.5)				
MEPP	pH, EC, Total Alkalinity, Ammoniacal Nitrogen, Chloride, COD, BOD, Cadmium, Chromium, Copper, Lead, Nickel, Iron, Arsenic, Magnesium, Potassium, Total Sulphates, Calcium, Sodium, Zinc, Manganese	Annually		None
MEPP	Hazardous substances	Once every four years		None
MEPP	Depth to base (mAoD)	Annually		None

<b>Table S3.8 Surface water – other monitoring requirements</b>				
<b>Monitoring Point Ref. /Description</b>	<b>Parameter</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>	<b>Other specifications</b>
MEPP	Ammoniacal Nitrogen Chloride Suspended Solids Visual Oil and Grease pH Electrical Conductivity	Monthly	Spot sample	As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u>risk assessments for your environmental permit (<a href="http://www.gov.uk">www.gov.uk</a>)</u> or such other subsequent guidance as may be agreed in writing with the Environment Agency.

## Schedule 4 – Reporting

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

<b>Table S4.1 Reporting of monitoring data</b>		
<b>Parameter</b>	<b>Reporting period</b>	<b>Period ends</b>
Leachate level As specified by schedule 3, table S3.1	Every 3 months	31 March, 30 June, 30 September, 31 December
Emission to groundwater As specified by schedule 3, table S3.3	Every 3 months	31 March, 30 June, 30 September, 31 December
Landfill gas in external monitoring boreholes As specified by schedule 3, table S3.4	Every 3 months	31 March, 30 June, 30 September, 31 December
Other groundwater monitoring As specified by schedule 3, table S3.5	Every 3 months	31 March, 30 June, 30 September, 31 December
Other Landfill gas monitoring As specified by schedule 3, table S3.6	Every 3 months	31 March, 30 June, 30 September, 31 December
Other leachate monitoring As specified by schedule 3, table S3.7	Every 12 months	31 December
Other surface water monitoring As specified by schedule 3, table S3.8	Every 12 months	31 December
Meteorological data Landfill Directive, annex III, section 2	Every 12 months	31 December

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

<b>Table S4.2: Annual production/treatment</b>	
Leachate: Disposed of off site;	Cubic metres/year
Landfill gas: Methane generation rate (50%ile from a representative model)	Normalised cubic metres/year  % methane v/v  m <sup>3</sup> /hr

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

<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	09/06/16
Controlled water	Form Water 1 or other reporting format to be agreed in writing with the Environment Agency	09/06/16
Groundwater	Form Groundwater 1 or other reporting format to be agreed in writing with the Environment Agency	09/06/16
Landfill gas	Form LFG 1 or other reporting format to be agreed in writing with the Environment Agency	09/06/16
Waste Return	Waste Return Form RATS2E	09/06/16
Landfill topographical surveys and interpretation	Reporting format to be agreed in writing with the Environment Agency	-

## Schedule 5 – Notification

This page outlines the information that the operator must provide.

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

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

### Part A

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

<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 within 24 hours of detection</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 within 24 hours of detection unless otherwise specified below</b>	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	

<b>(b) Notification requirements for the breach of a limit</b>	
<b>To be notified within 24 hours of detection unless otherwise specified below</b>	
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 within 24 hours of detection</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.

“Annually” means once every year.

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

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

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

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

“Cell layout drawing” means:

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

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

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

- The results of all testing required by the CQA programme - this must include the records of any failed tests with a written explanation, details of the remedial action taken, referenced to the appropriate secondary testing;
- Plans showing the location of all tests;
- “As-built” plans and sections of the works;
- Copies of the site engineer’s daily records;
- Records of any problems or non-compliances and the solution applied;

- Any other site specific information considered relevant to proving the integrity of the New Cell or Landfill Infrastructure;
- Validation by a qualified person that all of the construction has been carried out in accordance with the Construction Proposals.

“Emissions to land” includes emissions to groundwater.

“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.

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

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

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

“Hazardous substances” as defined by the Environmental Permitting (England and Wales) Regulations 2010, SI 2010 No.675, schedule 22.

“Inert waste” means waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater. “Landfill Infrastructure” means any specified element of the:

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

within the site.

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

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

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

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

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

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



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

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

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

for the New Cell.

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

“Pests” means Birds, Vermin and Insects.

“Previous year” means the 12 month period preceding the month the annual report is submitted in.

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

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

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

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

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

“Waste code” 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.

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

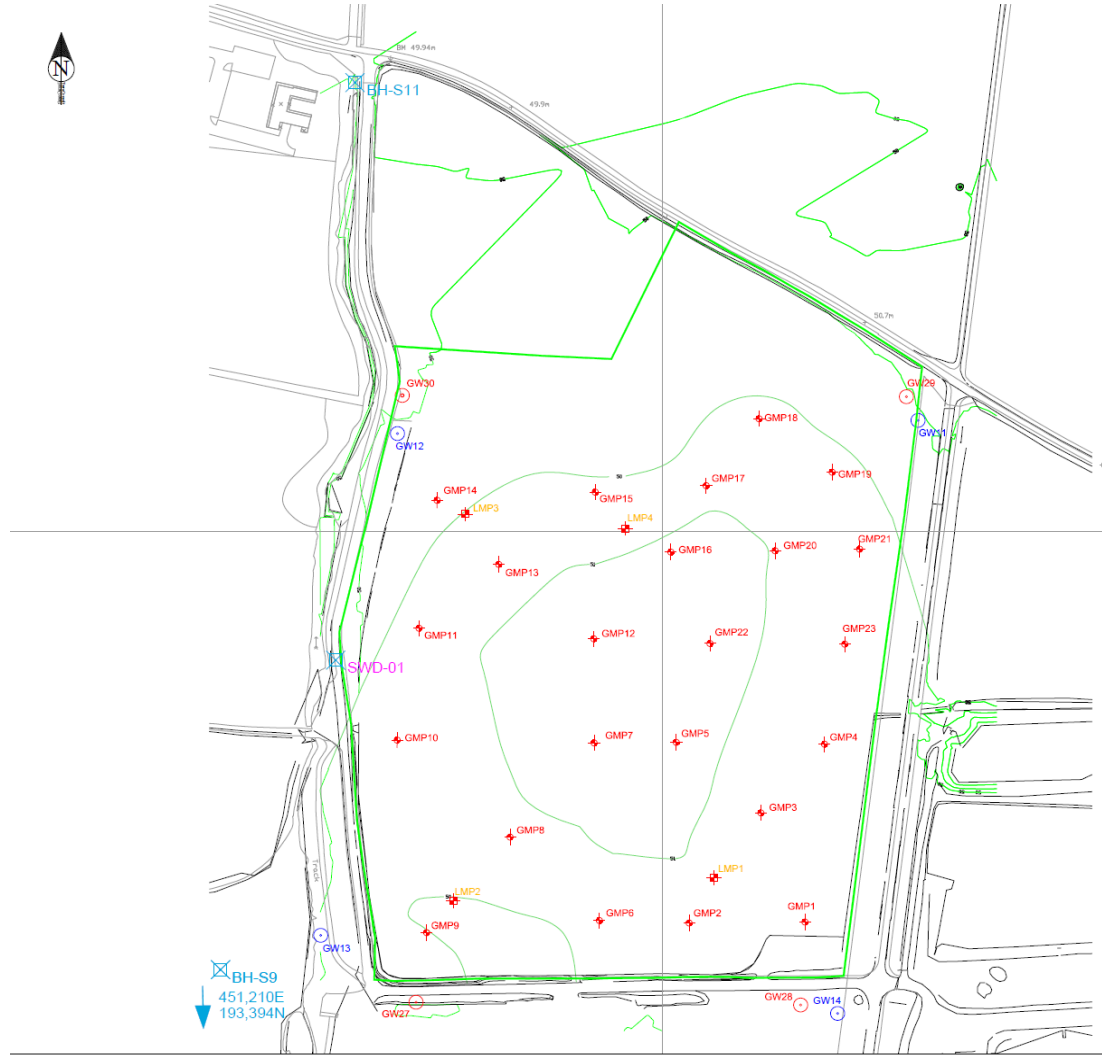
# Schedule 7 – Site plan

Site location



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# Site layout plan



**Notes**

— EP Application Boundary

**Proposed Installations**

- ↑ GMP6 Landfill Gas Monitoring Points
- GW28 Combined Gas / Groundwater (Drift) Monitoring Borehole
- ⊠ SWD-01 Surface Water Monitoring Point
- ↑ LMP4 Leachate Monitoring Point

All Positions indicative only

**Existing Installations**

- GW14 Groundwater Monitoring Borehole (Greensand)
- ⊠ BH-S11 Surface Water Monitoring Point

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**TerraConsult**

Bold Business Centre, Bold Lane,  
Sutton, St Helens WA9 4TX

Client

**FCC Environment**

Site  
**Sutton Courtenay  
Landfill Phase 3**

Title  
**Environmental Monitoring  
Plan**

Scale	1:2,500	@ A3
Drawing No.	1673/1/012	
Rev	Date	Description
File	16731012EnvironmentalMonitoringPlan.dwg	
Date	01/15	Engineer FCT
Drawn	PT	Checked JB

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END OF PERMIT

Permit Number:

EPR/TP3330AT

Operator:

Waste Recycling Group (Central)  
Limited

Facility:

Sutton Courtenay (Phase 3) Landfill  
Site

Form Number:

Leachate 1 / DD/MM/YY

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

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

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

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

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

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

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

(Authorised to sign as representative of Waste Recycling Group (Central) Limited)

Permit Number:

EPR/TP3330AT

Operator:

Waste Recycling Group (Central) Limited

Facility:

Sutton Courtenay (Phase 3) Landfill Site

Form Number:

Water1 / DD/MM/YY

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

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

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

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

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

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

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

(Authorised to sign as representative of Waste Recycling Group (Central) Limited)

Permit Number:

EPR/TP3330AT

Operator:

Waste Recycling Group (Central) Limited

Facility:

Sutton Courtenay (Phase 3) Landfill Site

Form Number:

Groundwater1 / DD/MM/YY

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

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

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

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

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

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

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

(Authorised to sign as representative of Waste Recycling Group (Central) Limited)

Permit Number: **EPR/TP3330AT** Operator: **Waste Recycling Group (Central) Limited**  
 Facility: **Sutton Courtenay (Phase 3) Landfill Site** Form Number: **LFG1 / DD/MM/YY**

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

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

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

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

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

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

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

(Authorised to sign as representative of Waste Recycling Group (Central) Limited)

Permit Number: **EPR/TP3330AT**

Operator: **Waste Recycling Group (Central) Limited**

Facility: **Sutton Courtenay (Phase 3) Landfill Site**

Form Number: **Performance1 / DD/MM/YY**

Reporting of other performance indicators for the period DD/MM/YYYY to DD/MM/YYYY

Parameter	Units

Operator's comments:

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

(Authorised to sign as representative of Waste Recycling Group (Central) Limited)