

# Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

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Anti-Waste Limited

Elstow (South) Landfill Wilstead Road Elstow Bedford Bedfordshire MK42 9YU

Permit number EPR/SP3100SR

# Elstow (South) Landfill Permit number EPR/SP3100SR

# **Introductory note**

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

The main features of the permit are as follows:

Elstow (South) Landfill is a non-hazardous landfill site found approximately 4.2 km south west of Bedford town centre at National grid reference TL0489745605.

The site will only accept qualifying material specified by Her Majesty's Revenue and Customs in landfill tax order 2011. Infilling will be completed to a level similar to the surrounding area.

| Status log of the permit                                         | Status log of the permit |                                                                                           |  |
|------------------------------------------------------------------|--------------------------|-------------------------------------------------------------------------------------------|--|
| Description                                                      | Date                     | Comments                                                                                  |  |
| Application<br>EPR/SP3100SR/A001                                 | Duly made 22/04/2022     | Application for non-hazardous landfill.                                                   |  |
| Additional information received                                  | 21/07/2022               | Updated HRA, Stability risk assessment,<br>Environmental management and monitoring plans. |  |
| Additional information received                                  | 14/11/2022               | Noise management plan, acoustic survey, ecology survey, updated HRA.                      |  |
| Permit determined<br>EPR/SP3100SR<br>Billing reference: SP3100SR | 13/07/2023               | Permit issued to Anti-Waste Limited.                                                      |  |

End of introductory note

# **Permit**

# The Environmental Permitting (England and Wales) Regulations 2016

#### Permit number

#### EPR/SP3100SR

The Environment Agency hereby authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016

Anti-Waste Limited ("the operator"),

whose registered office is

3 Sidings Court White Rose Way Doncaster DN4 5NU

company registration number 01569257

to operate an installation at

Elstow (South) Landfill Wilstead Road Elstow Bedford Bedfordshire MK42 9YU

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

| Name        | Date       |
|-------------|------------|
| Louise Hann | 13/07/2023 |

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 No activities authorised by this permit shall be commenced unless the operator has entered into an Agreement with the Environment Agency to secure financial provision for meeting the obligations under this permit and has provided the provision.
- 1.2.2 The operator shall give prior notice to the Environment Agency of its intention to commence operations at the site.
- 1.2.3 The financial provision provided under condition 1.2.1 above shall thereafter be maintained by the operator throughout the subsistence of the permit and the operator shall produce evidence of such provision whenever required by the Environment Agency.
- 1.2.4 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 red on the site 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 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 activities shall not be brought into operation until the measures specified in schedule 1, table \$1.4A have been completed.
- 2.5.2 The operations specified in schedule 1, table S1.4B shall not commence until the measures specified in that table have been completed.

### 2.6 Landfill Engineering

- 2.6.1 No construction of any new cell of the landfill shall commence until the operator has submitted construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.
- 2.6.2 Where the operator proposes to construct any new cell other than the first cell, but proposes no change from the design of the most recently approved cell which could have any impact on the performance of any element of the design, no construction of the new cell shall commence until the operator has submitted a cell layout drawing and the Environment Agency has confirmed that it is satisfied with the cell layout drawing.
- 2.6.3 The construction of a new cell shall take place only in accordance with the approved construction proposals unless:
  - (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or
  - (b) a change has otherwise been agreed in writing by the Environment Agency.
- 2.6.4 No disposal of waste shall take place in a new cell until the operator has submitted a CQA Validation Report and the Environment Agency has confirmed that it is satisfied with the CQA Validation Report.
- 2.6.5 No construction of landfill infrastructure shall commence until the operator has submitted relevant construction proposals or a written request to use previous construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.
- 2.6.6 The construction of the landfill infrastructure shall take place only in accordance with the approved construction proposals unless:
  - (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or
  - (b) a change has otherwise been agreed in writing by the Environment Agency.
- 2.6.7 The operator shall submit a CQA Validation Report within four weeks of the completion of the construction of the relevant landfill infrastructure, or other time period agreed in writing with the Environment Agency.
- 2.6.8 Where pollution controls are immediately necessary to prevent an incident or accident, then conditions 2.6.5 and 2.6.6 do not apply and the relevant landfill infrastructure may be constructed, provided that the construction proposals are submitted to the Environment Agency as soon as practicable.
- 2.6.9 For the purposes of conditions 2.6.1, 2.6.2, 2.6.4 and 2.6.5, the Environment Agency shall be deemed to be satisfied where it has not, within the period of four weeks from the date of receipt of the relevant construction proposals or CQA Validation Report, either:
  - (a) confirmed whether or not it is satisfied; or
  - (b) informed the operator that it requires further information.
- 2.6.10 Where the Environment Agency has required further information under condition 2.6.9(b), the Environment Agency shall be deemed to be satisfied where it has not, within the period of four weeks from the date of receipt of the further information, either:

- (a) confirmed whether or not it is satisfied; or
- (b) informed the operator that it requires further information.

### 2.7 Waste acceptance

- 2.7.1 Wastes shall only be accepted for disposal if:
  - (a) they are listed in schedule 2, table S2.1; and
  - (b) they are non- hazardous waste; and
  - (c) they are not whole used tyres (other than bicycle tyres and tyres with an outside diameter of more than 1400mm); and
  - (d) they are not shredded used tyres; and
  - (e) they are not liquid waste (including waste waters but excluding sludge); and
  - (f) they are not chemical substances from research and development or teaching activities, for example laboratory residues, which are unidentified and/or which are new and whose effects on man and/or the environment are unknown; and
  - (g) all the relevant waste acceptance procedures have been completed; and
  - (h) they fulfil the relevant waste acceptance criteria; and
  - (i) they have not been diluted or mixed solely to meet the relevant waste acceptance criteria; and
  - (j) they are wastes which have been treated, except for: inert wastes for which treatment is not technically feasible; or it is waste other than inert waste and treatment would not reduce its quantity or the hazards which it poses to human health or the environment, [or liquid waste accepted for treatment at a permitted leachate treatment activity]; 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; and
  - (I) they are not waste paper, metal, plastic or glass if that waste has been separately collected for the purpose of preparing for re-use or recycling.
- 2.7.2 Wastes shall only be accepted for restoration where:
  - (a) they are listed in schedule 2, table S2.2; and
  - (b) they are accepted in accordance with a restoration plan approved in writing by the Environment Agency.
- 2.7.3 Gypsum-based and other high sulphate bearing waste shall not be deposited in cells used or intended to be used for the disposal of biodegradable non-hazardous waste. Wastes disposed of in a cell with gypsum-based and other high sulphate bearing wastes must meet the relevant waste acceptance criteria.
- 2.7.4 The operator shall:
  - (a) visually inspect without unloading it, waste that is not in an enclosed container or enclosed vehicle on arrival at the landfill and waste at the point of deposit; and
  - (b) be satisfied that the waste conforms to the requirements of condition 2.7.1.
- 2.7.5 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 in the landfill shall be limited by the pre-settlement levels shown on drawing ESID5A.

- 2.7.8 The quantity of waste that is disposed of at the regulated facility in any year shall not exceed the limits in schedule 1, table S1.5.
- 2.7.9 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 use appropriate measures to flare or treat the gas in accordance with an approved landfill gas management plan.
- 2.10.3 The operator shall:
  - (a) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a revised landfill gas management plan;
  - (b) implement the revised landfill gas management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

# 3 Emissions and monitoring

## 3.1 Emissions to water, air or land

- 3.1.1 The limits in schedule 3 shall not be exceeded.
- 3.1.2 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3, 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.

#### 3.3 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.

#### 3.5 Pests

- 3.5.1 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.
- 3.5.2 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.

# 3.6 Monitoring

- 3.6.1 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;
  - (e) Surface water specified in table S3.8.
- 3.6.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.6.3 A topographical survey of the site referenced to ordnance datum shall be carried out 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.

#### 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 3.6.3 other than those submitted as part of a CQA validation report;
  - the volumetric difference (reported in cubic metres) between the most recent topographical survey and the previous annual topographical survey i.e. the additional volume of the landfill void that is occupied by waste;
  - (f) an assessment of the settlement behaviour of the landfill body based on the difference between the most recent topographical survey and previous annual topographical survey for the areas of the landfill which did not receive waste between the surveys;

- (g) a calculation of the remaining capacity (reported in cubic metres) derived from the pre-settlement contours and the most recent topographical survey;
- (h) a plan(s) ('the monitoring and extraction point plan MEPP') showing the locations of existing and any new leachate and landfill gas extraction and monitoring points.
- 4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
  - (a) in respect of the parameters and emission points specified in schedule 4, table S4.1;
  - (b) using the forms specified in schedule 4, table S4.4 or other reporting format as agreed in writing with the Environment Agency; and
  - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.4 Within one month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.
- 4.2.5 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

#### 4.3 Notifications

- 4.3.1 In the event:
  - (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
    - (i) inform the Environment Agency;
    - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident; and
    - (iii) take the measures necessary to prevent further possible incidents or accidents.
  - (b) of a breach of any permit condition the operator must immediately—
    - (i) inform the Environment Agency; and
    - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time.
  - (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 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:

- (c) any change in the operator's name or address; and
- (d) 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.
- 4.3.4 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:
  - (a) the Environment Agency shall be notified at least 14 days before making the change; and
  - (b) the notification shall contain a description of the proposed change in operation.

### 4.4 Interpretation

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.
- 4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately", in which case it may be provided by telephone.

# **Schedule 1 – Operations**

| Table S1.1 a       | Table S1.1 activities                                                             |                                                                      |                                                                                        |                                                                                                                                                            |
|--------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Activity reference | WFD Annex I and II operations (where applicable)                                  | Activity listed in<br>Schedule 1 of the EP<br>Regulations            | Description of specified activity                                                      | Limits of specified activity                                                                                                                               |
| A1                 | D5 – Specially<br>engineered landfill                                             | Section 5.2 Part A(1)(a),<br>The disposal of waste in<br>a landfill. | Landfill for non-hazardous waste                                                       | Receipt, handling, storage and disposal of wastes, consisting of the types and quantities specified in conditions 2.7, as an integral part of landfilling. |
| Directly Ass       | ociated Activities                                                                |                                                                      | •                                                                                      |                                                                                                                                                            |
| A2                 | D6 – release to water<br>body except seas/<br>oceans                              | -                                                                    | Discharges of site drainage from the landfill.                                         | From surface water management system to point of entry to controlled waters.                                                                               |
| A3                 | R5:<br>Recycling/reclamation<br>of other inorganic<br>material                    | -                                                                    | Recovery of waste for restoration and/ or Recovery of waste in an engineered structure | The use of wastes in table S2.2 only to provide restoration material for the permitted landfill.                                                           |
| A4                 | R10: Land treatment resulting in benefit to agriculture or ecological improvement |                                                                      | Recovery of waste for restoration and/ or Recovery of waste in an engineered structure | The use of wastes in table S2.2 only to provide restoration material for the permitted landfill.                                                           |

| Table S1.2 Operating techniques                 |                                                                      |               |
|-------------------------------------------------|----------------------------------------------------------------------|---------------|
| Description                                     | Parts                                                                | Date Received |
| Application EPR/SP3100SR                        | Responses to questions in Part B2 and B3 application forms           | 18/06/21      |
| Application                                     | Hydrological risk assessment reference 5192/R/007/01 dated June 2021 | 18/06/21      |
| Application                                     | Landfill gas management plan reference 5192/R/008/01 dated June 2021 | 18/06/21      |
| Application                                     | Restoration Plan                                                     | 18/06/21      |
| Application                                     | Waste recovery plan                                                  | 18/06/21      |
| Application                                     | Dust management plan                                                 | 18/06/21      |
| In response to Schedule 5 Notice dated 13/10/22 | Letter in response to schedule 5 request dated 13/10/22              | 14/11/22      |
| Response to Schedule 5 Notice dated 13/10/22    | Noise management plan                                                | 14/11/22      |

| Table S1.3 Improvement programme requirements |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                             |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| Reference                                     | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Date                                        |
| IC1                                           | shall progressively install in-waste gas monitoring points at a minimum density of 2 points per hectare as part of the restoration of each phase and commence routine in-waste gas monitoring unless otherwise agreed with the Environment Agency.  The landfill gas monitoring boreholes shall be constructed and recorded in accordance with a                                                                                                                                                                                                                                                                                                                    |                                             |
|                                               | Construction Quality Assurance (CQA) Plan covering all elements of the landfill gas monitoring system. The proposal shall be in accordance with the Environment Agency Guidance: LFTGN03 'Management of Landfill Gas'.                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                             |
| IC2                                           | <ul> <li>The operator shall:         <ul> <li>Install groundwater borehole ELS-GW1, ELS-GW2 and ELS-GW3 in accordance with an appropriate agreed design and CQA plan for the boreholes.</li> <li>Monitor, on a monthly interval, the new groundwater monitoring points and collect a statistically significant data set covering a minimum period of 12 months for both levels and quality data.</li> <li>Undertake the monitoring in accordance with Environment Agency Guidance: LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), Horizontal Guidance Note H1 – Environmental Risk Assessment for</li> </ul> </li> </ul> | 18 months monitoring and report of results. |

| Table S1.3 Improvement programme requirements |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| Reference                                     | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Date       |
|                                               | permits, Annex J3, version 2.1, Dec 2011 or such other subsequent guidance as may be agreed in writing with the Environment Agency.  • Establish the baseline concentrations and propose compliance limits for ELS-GW2 and ELS-GW3 for the parameters specified in schedule 3, table S3.3 and the corresponding action levels.  Submit a written report on the proposed compliance limits and action levels to the                                                                                                                                                                                                                                                                                                                                                  |            |
| IC3                                           | Environment Agency for approval.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 13/01/2025 |
|                                               | <ul> <li>Install gas monitoring boreholes ELS-BHG01, ELS-BHG02, ELS-BHG03 and ELS-BH04 in accordance with an appropriate agreed design and CQA plan for the boreholes.</li> <li>Following installation, monitor, on a monthly interval, the new gas monitoring points and collect a statistically significant data set covering a minimum period of 12 months for the soil gas composition.</li> <li>Undertake the monitoring in accordance with Environment Agency Guidance: LFTGN03 'Management of landfill gas' (June 2014) or such other subsequent guidance as may be agreed in writing with the Environment Agency.</li> <li>Propose compliance limits for the parameters specified in schedule 3, table S3.4 and the corresponding action levels.</li> </ul> | 15/01/2023 |
|                                               | Submit a written report on the proposed compliance limits and action levels to the Environment Agency for approval.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |

| Table S1.4A Pre-operational measures |                                                                                                        |  |
|--------------------------------------|--------------------------------------------------------------------------------------------------------|--|
| Reference                            | Pre-operational measures                                                                               |  |
| 1                                    | No waste shall be deposited until the financial provision has been agreed with the Environment Agency. |  |

| Table S1.4B Pro | Table S1.4B Pre-operational measures for future development                                                                               |                                                                                                                                                                                                                                                                                                                                                                            |  |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Reference       | Operation                                                                                                                                 | Pre-operational measures                                                                                                                                                                                                                                                                                                                                                   |  |
| PO1             | Gravity surface water discharge through ELS-SW1 and ELS-SW2 (once levels within the site are restored to above surrounding ground levels) | Prior to placement of the final restoration layer and the passive drainage of water under the final landform to discharge through ELS-SW1 and ELS-SW2, the Operator shall submit for approval to the Environment Agency details of the final surface water drainage scheme and monitoring programme.                                                                       |  |
| PO2             | Leachate / surface water run-off interaction and associated control measures within the soils waste mass                                  | Prior to the commencement and capping and restoration, the Operator shall submit to the Environment Agency for approval an updated assessment of the potential risks posed by the long-term leachate egress from the soil mass to the site's perimeter drainage network and where necessary propose methods for the interception and control of sub-cap leachate seepages. |  |

| Table S1.5 Annual waste input limits |           |
|--------------------------------------|-----------|
| Category Limit tonnes/year           |           |
| Non-hazardous waste                  | 750,000   |
| Waste for restoration                | 750,000   |
| Total                                | 1,500,000 |

# Schedule 2 – List of permitted wastes

| Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste |                                                                                                                                                                                                    |  |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Waste code                                                                          | Description                                                                                                                                                                                        |  |
| 01                                                                                  | Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals                                                                                              |  |
| 01 01                                                                               | wastes from mineral excavation                                                                                                                                                                     |  |
| 01 01 02                                                                            | wastes from mineral non-metalliferous excavation                                                                                                                                                   |  |
| 01 04                                                                               | wastes from physical and chemical processing of non-metalliferous minerals                                                                                                                         |  |
| 01 04 08                                                                            | waste gravel and crushed rocks other than those mentioned in 01 04 07                                                                                                                              |  |
| 01 04 09                                                                            | waste sand and clays                                                                                                                                                                               |  |
| 10                                                                                  | Wastes from thermal processes                                                                                                                                                                      |  |
| 10 11                                                                               | wastes from manufacture of glass and glass products                                                                                                                                                |  |
| 10 11 12                                                                            | waste glass other than those mentioned in 10 11 11                                                                                                                                                 |  |
| 10 12                                                                               | wastes from manufacture of ceramic goods, bricks, tiles and construction products                                                                                                                  |  |
| 10 12 06                                                                            | discarded moulds                                                                                                                                                                                   |  |
| 15                                                                                  | WASTE PACKAGING, ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED                                                                                       |  |
| 15 01                                                                               | Packaging                                                                                                                                                                                          |  |
| 15 01 07                                                                            | Glass packaging                                                                                                                                                                                    |  |
| 16                                                                                  | Wastes not otherwise specified in the list                                                                                                                                                         |  |
| 16 01                                                                               | end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08) |  |
| 16 01 20                                                                            | glass                                                                                                                                                                                              |  |
| 17                                                                                  | Construction and demolition wastes (including excavated soil from contaminated sites)                                                                                                              |  |
| 17 01                                                                               | concrete, bricks, tiles and ceramics                                                                                                                                                               |  |

| Table S2.1 Permitted w | aste types for disposal at a landfill for non-hazardous waste                                                                                                           |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Waste code             | Description                                                                                                                                                             |
| 17 01 01               | concrete                                                                                                                                                                |
| 17 01 02               | bricks                                                                                                                                                                  |
| 17 01 03               | tiles and ceramics                                                                                                                                                      |
| 17 01 07               | mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06                                                                                 |
| 17 02                  | wood, glass and plastic                                                                                                                                                 |
| 17 02 02               | glass                                                                                                                                                                   |
| 17 05                  | soil (including excavated soil from contaminated sites), stones and dredging spoil                                                                                      |
| 17 05 04               | soil and stones other than those mentioned in 17 05 03                                                                                                                  |
| 17 05 08               | track ballast other than those mentioned in 17 05 07                                                                                                                    |
| 17 09                  | other construction and demolition wastes                                                                                                                                |
| 17 09 04               | mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03                                                                  |
| 19                     | WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE |
| 19 12                  | Waste from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified.                                          |
| 19 12 05               | Glass                                                                                                                                                                   |
| 19 12 09               | Mineral (for example sand and stones)                                                                                                                                   |
| 19 12 12               | Treated bottom ash including IBA and slag other than that containing dangerous substances                                                                               |
| 19 12 12               | Residue from waste processing                                                                                                                                           |
| 19 13                  | wastes from soil and groundwater remediation                                                                                                                            |
| 19 13 02               | solid wastes from soil remediation other than those mentioned in 19 13 01                                                                                               |
| 20                     | Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions                                 |
| 20 01                  | separately collected fractions (except 15 01)                                                                                                                           |
| 20 01 02               | glass                                                                                                                                                                   |
| 20 02                  | garden and park wastes (including cemetery waste)                                                                                                                       |

| Table S2.1 Permitted waste types for disposal at a landfill for non-hazardous waste |                 |  |
|-------------------------------------------------------------------------------------|-----------------|--|
| Waste code                                                                          | Description     |  |
| 20 02 02                                                                            | soil and stones |  |

| Table S2.2 Permitted waste ty | pes for restoration                                                                                                |  |  |  |  |  |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| Waste code                    | Description                                                                                                        |  |  |  |  |  |
| 01                            | Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals              |  |  |  |  |  |
| 01 01                         | Wastes from mineral non-metalliferous excavation                                                                   |  |  |  |  |  |
| 01 01 02                      | Wastes from mineral non-metalliferous excavation                                                                   |  |  |  |  |  |
| 01 04                         | wastes from physical and chemical processing of non-metalliferous minerals                                         |  |  |  |  |  |
| 01 04 08                      | waste gravel and crushed rocks other than those mentioned in 01 04 07                                              |  |  |  |  |  |
| 01 04 09                      | waste sand and clays                                                                                               |  |  |  |  |  |
| 02                            | Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing |  |  |  |  |  |
| 02 01                         | Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing                                  |  |  |  |  |  |
| 02 01 03                      | Plant tissue waste                                                                                                 |  |  |  |  |  |
| 02 01 06                      | Farmyard manure and slurry, horse manure and soiled bedding made from plant tissue only                            |  |  |  |  |  |
| 02 04                         | wastes from sugar processing                                                                                       |  |  |  |  |  |
| 02 04 01                      | soil from cleaning and washing beet                                                                                |  |  |  |  |  |
| 03                            | Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard                  |  |  |  |  |  |
| 03 01                         | wastes from wood processing and the production of panels and furniture                                             |  |  |  |  |  |
| 03 01 01                      | Waste bark and cork                                                                                                |  |  |  |  |  |
| 03 01 05                      | Untreated sawdust and woodshavings other than those mentioned in 03 01 04                                          |  |  |  |  |  |
| 17                            | Construction and demolition wastes (including excavated soil from contaminated sites)                              |  |  |  |  |  |
| 17 01                         | Concrete, bricks and ceramics                                                                                      |  |  |  |  |  |
| 17 01 01                      | Concrete                                                                                                           |  |  |  |  |  |
| 17 01 02                      | Bricks                                                                                                             |  |  |  |  |  |

| Table S2.2 Permitted | waste types for restoration                                                                                                                                             |  |  |  |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| Waste code           | Description                                                                                                                                                             |  |  |  |
| 17 01 03             | Tiles and ceramics                                                                                                                                                      |  |  |  |
| 17 01 07             | Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06                                                                                 |  |  |  |
| 17 05                | Soil (including excavated soil from contaminated sites), stones and dredging spoil                                                                                      |  |  |  |
| 17 05 04             | Soil and stones other than those mentioned in 17 05 03                                                                                                                  |  |  |  |
| 17 05 06             | Dredging spoil other than those mentioned in 17 05 05                                                                                                                   |  |  |  |
| 19                   | Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use |  |  |  |
| 19 08                | wastes from waste water treatment plants not otherwise specified                                                                                                        |  |  |  |
| 19 08 05             | Sludges from treatment of urban waste water                                                                                                                             |  |  |  |
| 19 12                | Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwis specified                                           |  |  |  |
| 19 12 09             | Minerals (for example sands and stones)                                                                                                                                 |  |  |  |
| 20                   | Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions                                 |  |  |  |
| 20 02                | garden and park wastes (including cemetery waste)                                                                                                                       |  |  |  |
| 20 02 01             | Seaweed only                                                                                                                                                            |  |  |  |
| 20 02 02             | soil and stones                                                                                                                                                         |  |  |  |

# Schedule 3 – Emissions and monitoring

| Monitoring point reference/ Description                                                             | Limit                 | Monitoring frequency       | Monitoring standard and method                                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------|-----------------------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operational Cells or Phases (Any cells or ph                                                        | nases that do not hav | e a final engineered cap a | agreed in accordance with the landfill engineering condition, 2.6)                                                                                                                                                                           |
| One point per hydraulically separate area*:<br>LMP01, LMP02 LMP03, LMP04, LMP05,<br>LMP06 and LMP07 | No limit              | Monthly                    | As specified in Environment Agency Guidance LFTGN02 (February 2003) or such other subsequent guidance as may be agreed in writing with the Environment Agency. Or as otherwise agreed with the Agency as part of a leachate monitoring plan. |
| Non Operational Cells or Phases (Any cells                                                          | or phases that have   | a final engineered cap agi | reed in accordance with the landfill engineering condition, 2.6)                                                                                                                                                                             |
| -                                                                                                   | No limit              | Quarterly                  | As specified in Environment Agency Guidance LFTGN02 (February 2003) or such other subsequent guidance as may be agreed in writing with the Environment Agency. Or as                                                                         |

| Emission<br>point<br>Ref. &<br>Location | Parameter              | Source               | Limit<br>(incl<br>unit)* | Reference<br>Period | Monitoring<br>Frequency | Monitoring Standard or Method                                                                               |                                                                                                                                                        |
|-----------------------------------------|------------------------|----------------------|--------------------------|---------------------|-------------------------|-------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                         | Suspended<br>Solids    | Surface<br>water cap | 40 mg/l                  | Spot Sample         | Monthly                 | As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface |                                                                                                                                                        |
| SW2                                     | Oil and<br>Grease      | drainage             | None<br>visible          |                     |                         |                                                                                                             | Water' (February 2003), risk assessments for your environmental permit (www.gov.uk) or such other subsequent guidance as may be agreed in writing with |
|                                         | Ammoniacal<br>Nitrogen |                      | 2 mg/l                   |                     |                         |                                                                                                             |                                                                                                                                                        |
|                                         | рН                     | 1                    | 6-9                      |                     |                         |                                                                                                             |                                                                                                                                                        |

<sup>\*</sup> Compliance limits for surface water discharges to be determined/revised if required through PO1

| Monitoring point reference | Parameter              | Limit<br>(including<br>unit)* | Reference<br>Period | Monitoring frequency | Monitoring standard or method                                                                                                                                                                                                                                                                               |
|----------------------------|------------------------|-------------------------------|---------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ELS-GW2 and ELS-<br>GW3    | Ammoniacal<br>Nitrogen | 4.5 mg/l                      | Spot Sample         | pot Sample Quarterly | As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u>risk assessments for your environmental permit</u> ( <u>www.gov.uk</u> ) or such other subsequent guidance as may be agreed in writing with the Environment Agency |
|                            | Nickel                 | TBC                           | -                   |                      |                                                                                                                                                                                                                                                                                                             |
|                            | Lead                   | 0.001 mg/l                    |                     |                      |                                                                                                                                                                                                                                                                                                             |
|                            | Arsenic                | TBC                           |                     |                      |                                                                                                                                                                                                                                                                                                             |
|                            | Cadmium                | 0.005 mg/l                    |                     |                      |                                                                                                                                                                                                                                                                                                             |
|                            | Sulphate               | TBC                           |                     |                      |                                                                                                                                                                                                                                                                                                             |
|                            | Chloride               | TBC                           |                     |                      |                                                                                                                                                                                                                                                                                                             |

<sup>\*</sup> Interim limits set as "action limits" (only) with compliance limits for groundwater wells to be determined/revised through IC2

| Monitoring point Ref. /description | Parameter            | Limit (including units) * | Monitoring frequency | Monitoring standard or method                                                                                     |
|------------------------------------|----------------------|---------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------|
| ELS-BHG01, ELS-<br>BHG02, ELS-     | Methane              | 1 %v/v                    | Monthly              | As specified in Environment Agency Guidance LFTGN03 (September 2004), or such other subsequent guidance as may be |
| BHG03 and ELS-<br>BH04             | Carbon Dioxide       | no limit                  |                      | agreed in writing with the Environment Agency.                                                                    |
|                                    |                      | J                         |                      | Record whether the ground is:                                                                                     |
|                                    | Oxygen               | no limit                  |                      | waterlogged                                                                                                       |
|                                    | 7.5                  |                           |                      | frozen                                                                                                            |
|                                    | Atmospheric pressure | no limit                  |                      | snow covered                                                                                                      |

<sup>\*</sup> Interim compliance limits set with limits for gas monitoring wells to be determined/revised through IC3

| Monitoring Point Ref. | Parameter                                                                                                                                   | Monitoring frequency                      | Monitoring standard or method                                                                                                                                                        |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| /Description          |                                                                                                                                             |                                           |                                                                                                                                                                                      |
| Up gradient<br>MEPP   | Water level, Ammoniacal<br>Nitrogen, Chloride, Electrical<br>Conductivity, pH                                                               | Quarterly                                 | As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), risk assessments for your environmental permit |
|                       | Calcium, Chromium, Copper,<br>Iron, Lead, Magnesium,<br>Manganese, Nickel, Potassium,<br>Sodium, Total Alkalinity, Total<br>Sulphates, Zinc | Annually                                  | ( <u>www.gov.uk</u> ) or such other subsequent guidance as may be agreed in writing with the Environment Agency                                                                      |
|                       | Hazardous substances                                                                                                                        | Annually for first six years of operation |                                                                                                                                                                                      |

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

| Monitoring Point Ref.                          | Parameter                                                                                 | Monitoring frequency | Monitoring standard or method             | Other specifications                                                                          |
|------------------------------------------------|-------------------------------------------------------------------------------------------|----------------------|-------------------------------------------|-----------------------------------------------------------------------------------------------|
| /Description                                   |                                                                                           |                      |                                           |                                                                                               |
| In-waste wells*: ELS-<br>GP01 to ELS-GP37      | Methane Carbon Dioxide Oxygen Balance gas Gas flow Atmospheric pressure Relative pressure | Quarterly            | Calibrated handheld monitoring instrument | Record the ambient air temperature and whether the ground is: waterlogged frozen snow covered |
| MEPP (all gas<br>monitoring points /<br>wells) | Base of monitoring point (mAoD)                                                           | Annually             |                                           |                                                                                               |

| Monitoring point reference or description  | Parameter                                                                                                                                                                                                                              | Monitoring frequency                   | Monitoring standard or method                                                                                                                                                 | Other specifications |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| Operational Cells or                       | Phases                                                                                                                                                                                                                                 | •                                      |                                                                                                                                                                               | •                    |
| (Any cell or phases                        | that do not have a final engineered cap agreed                                                                                                                                                                                         | l in accordance                        | with condition 2.6)                                                                                                                                                           |                      |
| MEPP                                       | Ammoniacal Nitrogen, Arsenic, BOD,<br>Cadmium, Calcium, Chloride, Chromium,<br>COD, Copper, Electrical Conductivity, Iron,<br>Lead, Magnesium, Manganese, Nickel, pH,<br>Potassium, Sodium, Total Alkalinity, Total<br>Sulphates, Zinc | Quarterly                              | At leachate extraction points as listed in table S3.1 unless otherwise agreed in writing through an MEPP.  As specified in Environment Agency Guidance LFTGN02 'Monitoring of | None                 |
| MEPP                                       | Hazardous substances                                                                                                                                                                                                                   | Law dell Law de ta Consum distance and |                                                                                                                                                                               |                      |
| MEPP                                       | Depth to base (mAOD)                                                                                                                                                                                                                   | Annually                               | assessments for your environmental permit (www.gov.uk), or such other subsequent guidance as may be agreed in writing with the Environment Agency                             |                      |
| Non Operational Cel<br>(Any cell or phases | lls or Phases<br>that have a final engineered cap agreed in acc                                                                                                                                                                        | ordance with co                        | ndition 2.6                                                                                                                                                                   |                      |
| MEPP                                       | Ammoniacal Nitrogen, Arsenic, BOD,<br>Cadmium, Calcium, Chloride, Chromium,<br>COD, Copper, Electrical Conductivity, Iron,<br>Lead, Magnesium, Manganese, Nickel, pH,<br>Potassium, Sodium, Total Alkalinity, Total<br>Sulphates, Zinc | Annually                               | At leachate extraction points as listed in table S3.1 unless otherwise agreed in writing through an MEPP  As specified in Environment Agency Guidance LFTGN02 'Monitoring of  | None                 |
| MEPP                                       | Hazardous substances                                                                                                                                                                                                                   | Once every four years                  | Landfill Leachate, Groundwater and<br>Surface Water' (February 2003), <u>risk</u>                                                                                             |                      |
| MEPP                                       | Depth to base (mAOD)                                                                                                                                                                                                                   | Annually                               | assessments for your environmental permit (www.gov.uk), or such other subsequent guidance as may be agreed in writing with the Environment Agency                             |                      |

| Table S3.8 Surface water           | Table S3.8 Surface water – other monitoring requirements                                       |                      |                               |                                                                                                                                                                                                                                                                                              |  |  |  |
|------------------------------------|------------------------------------------------------------------------------------------------|----------------------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| Monitoring Point Ref. /Description | Parameter                                                                                      | Monitoring frequency | Monitoring standard or method | Other specifications                                                                                                                                                                                                                                                                         |  |  |  |
| MEPP                               | Ammoniacal Nitrogen Chloride Electrical conductivity pH Suspended solids Visual Oil and Grease | Monthly              | Spot sample                   | As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), risk assessments for your environmental permit (www.gov.uk) or such other subsequent guidance as may be agreed in writing with the Environment Agency. |  |  |  |

# Schedule 4 – Reporting

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

| Table S4.1 Reporting of monitoring data                                              |                  |                                                 |
|--------------------------------------------------------------------------------------|------------------|-------------------------------------------------|
| Parameter                                                                            | Reporting period | Period ends                                     |
| Leachate [and/ or groundwater] level As specified by schedule 3, table S3.1          | Every 3 months   | 31 March, 30 June, 30<br>September, 31 December |
| Point source emission to water (other than sewer)                                    | Every 3 months   | 31 March, 30 June, 30<br>September, 31 December |
| As specified by schedule 3, table S3.2                                               |                  |                                                 |
| Emission to groundwater As specified by schedule 3, table S3.3                       | Every 3 months   | 31 March, 30 June, 30<br>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<br>September, 31 December |
| Other groundwater monitoring As specified by schedule 3, table S3.5                  | Every 3 months   | 31 March, 30 June, 30<br>September, 31 December |
| Other Landfill gas monitoring As specified by schedule 3, table S3.6                 | Every 3 months   | 31 March, 30 June, 30<br>September, 31 December |
| Trace gas monitoring                                                                 | Every 12 months  | 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                                     |

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

| Table S4.2: Annual production/treatment                                     |                              |
|-----------------------------------------------------------------------------|------------------------------|
| Leachate:                                                                   | Cubic metres/year            |
| Disposed of off site;                                                       |                              |
| Disposed of to any onsite effluent treatment plant;                         |                              |
| Recirculated into the waste mass;                                           |                              |
| Accepted from offsite for treatment at any onsite effluent treatment plant. |                              |
| Landfill gas:                                                               | Normalised cubic metres/year |
| Other methods of gas utilisation.                                           | % methane v/v                |
| Methane generation rate (50%ile from a representative model)                | m³ /hr                       |
|                                                                             |                              |
|                                                                             |                              |

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

| Table S4.4 Reporting Forms                                 |                                                                                                  |              |
|------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------|
| Media/parameter                                            | Reporting Format                                                                                 | Date of Form |
| Leachate                                                   | Form leachate 1 or other reporting format to be agreed in writing with the Environment Agency    | 05/04/2023   |
| Air                                                        | Form Air 1 or other reporting format to be agreed in writing with the Environment Agency         | 05/04/2023   |
| Controlled water                                           | Form Water 1 or other reporting format to be agreed in writing with the Environment Agency       | 05/04/2023   |
| Groundwater                                                | Form Groundwater 1 or other reporting format to be agreed in writing with the Environment Agency | 05/04/2023   |
| Landfill gas                                               | Form LFG 1 or other reporting format to be agreed in writing with the Environment Agency         | 05/04/2023   |
| Waste Return                                               | E-waste Return Form                                                                              | -            |
| Landfill<br>topographical<br>surveys and<br>interpretation | Reporting format to be agreed in writing with the Environment Agency                             | 05/04/2023   |

# Schedule 5 - Notification

This page outlines the information that the operator must provide.

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

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

#### Part A

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

| (a) Notification requirements for any incident or accident which significantly affects or may significantly affect the environment |                                            |                     |  |
|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|---------------------|--|
| To be notified within 24 hours of detection                                                                                        |                                            |                     |  |
| Date and Time of the event                                                                                                         |                                            |                     |  |
| Reference or description of the location of the event                                                                              |                                            |                     |  |
| Description of where any release into the environment took place                                                                   |                                            |                     |  |
| Substances(s) potentially released                                                                                                 |                                            |                     |  |
| Best estimate of the quantity or rate of release of substances                                                                     |                                            |                     |  |
| Measures taken, or intended to be taken, to stop any emission                                                                      |                                            |                     |  |
| Description of the failure or accident.                                                                                            |                                            |                     |  |
|                                                                                                                                    |                                            |                     |  |
| (b) Notification requirements for t                                                                                                | the breach of a limit                      |                     |  |
| To be notified within 24 hours of                                                                                                  | detection unless otherwise specified bel   | ow                  |  |
| Emission point reference/ source                                                                                                   |                                            |                     |  |
| Parameter(s)                                                                                                                       |                                            |                     |  |
| Limit                                                                                                                              |                                            |                     |  |
| Measured value and uncertainty                                                                                                     |                                            |                     |  |
| Date and time of monitoring                                                                                                        |                                            |                     |  |
| Measures taken, or intended to be taken, to stop the emission                                                                      |                                            |                     |  |
|                                                                                                                                    |                                            |                     |  |
| Time periods for notification follo                                                                                                | owing detection of a breach of a limit     | T                   |  |
| Parameter                                                                                                                          |                                            | Notification period |  |
|                                                                                                                                    |                                            |                     |  |
|                                                                                                                                    |                                            |                     |  |
|                                                                                                                                    |                                            |                     |  |
| (c) Notification requirements for t                                                                                                | the breach of permit conditions not relate | ed to limits        |  |
| To be notified within 24 hours of det                                                                                              | tection                                    |                     |  |
| Condition breached                                                                                                                 |                                            |                     |  |
| Date, time and duration of breach                                                                                                  |                                            |                     |  |
| Details of the permit breach i.e. what happened including impacts observed.                                                        |                                            |                     |  |

| taken, to restore permit compliance.                                                                               |                  |               |             |     |
|--------------------------------------------------------------------------------------------------------------------|------------------|---------------|-------------|-----|
| Compilarios.                                                                                                       |                  |               |             |     |
|                                                                                                                    |                  |               |             |     |
|                                                                                                                    |                  |               |             |     |
| (d) Notification requirements in the immediate danger to human heal on the environment                             |                  |               |             | ect |
| To be notified within 24 hours of                                                                                  | detection        |               |             |     |
| Description of where the effect on the environment was detected                                                    |                  |               |             |     |
| Substances(s) detected                                                                                             |                  |               |             |     |
| Concentrations of substances detected                                                                              |                  |               |             |     |
| Date of monitoring/sampling                                                                                        |                  |               |             |     |
| Part B to be supplied  Any more accurate information on the                                                        |                  | s practicable | <del></del> |     |
| notification under Part A.                                                                                         |                  |               |             |     |
| Measures taken, or intended to be t a recurrence of the incident                                                   | aken, to prevent |               |             |     |
| Measures taken, or intended to be t<br>limit or prevent any pollution of the<br>which has been or may be caused by | environment      |               |             |     |
| The dates of any unauthorised emis facility in the preceding 24 months.                                            | sions from the   |               |             |     |
|                                                                                                                    |                  |               |             |     |
| Name*                                                                                                              |                  |               |             |     |
| Post                                                                                                               |                  |               |             |     |
| Signature                                                                                                          |                  |               |             |     |
| Date                                                                                                               |                  |               |             |     |
| * authorized to size on behalf of the                                                                              |                  |               |             |     |

Measures taken, or intended to be

<sup>\*</sup> authorised to sign on behalf of the operator

# Schedule 6 - Interpretation

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

"annually" means once every year.

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

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

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

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

"cell layout drawing" means:

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

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

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

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

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

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

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

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

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

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

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

"landfill Infrastructure" means any specified element of the:

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

within the site.

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

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

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

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

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

<sup>&</sup>quot;emissions to land" includes emissions to groundwater.

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

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

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

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

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

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

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

for the New Cell.

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

"pests" means Birds, Vermin and Insects.

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

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

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

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

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

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

"Waste Framework Directive" or "WFD" means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

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

Where the following terms appear in the waste code list in Tables S2.1 or S2.2 they have the meaning given below:

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

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

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

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

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

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

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

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

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

# Schedule 7 – Site plan



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**END OF PERMIT**