

# Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Augean South Limited

East Northants Resource Management Facility Stamford Road King's Cliffe Peterborough PE8 6XX

Variation application number

EPR/TP3430GW/V007

Permit number

EPR/TP3430GW

## East Northants Resource Management Facility Permit number EPR/TP3430GW

## Introductory note

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

Under the Environmental Permitting (England & Wales) Regulations 2016 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

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

The effect of the variation is to:

- extend waste disposal operations into the western extension area (Phases 12 to 21),
- extend the time limit that the leachate level of 5 metres is allowed from 2025 to 2046 across the existing phases (Phases 1 to 11), however the new phases (Phases 12 to 21) have a leachate limit of 1 metre, and
- amend the throughput from 250,000 to 300,000 tonnes per annum.

The schedules specify the changes made to the permit.

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

Status log of the permit		
Description	Date	Comments
Application EPR/TP3430GW/A001	Duly made 24/11/2008	Application for hazardous landfill.
Permit determined EPR/TP3430GW	11/05/2009	Permit issued to Augean South Limited.
Variation Application EPR/TP3430GW/V003	Duly Made 18/12/2009	Application to amend financial provision condition 1.3.
Variation Application EPR/TP3430GW/V002	Duly Made 15/03/2010	Application to amend reference in condition 3.1.6 to the correct monitoring table.
Variation Determined EPR/TP3430GW/V002	16/03/2010	Variation issued.
Variation Determined EPR/TP3430GW/V003	30/03/2010	Variation issued.
Environment Agency Landfill Sector Review 2013 Permit reviewed	13/10/2014	Environment Agency variation. Updated and consolidated permit issued.

Description	Date	Comments
Variation determined EPR/TP3430GW/V004		
Variation Application EPR/TP3430GW/V005	Duly made 20/01/2015	Application to extend waste deposit into phases 6 to 11 (western landfill area), amend the permitted level of leachate and change the capping, basal area and side slope designs.
Further information received	22/04/2015	Updated monitoring, restoration plan and clarification of LandSim modelling.
Further information received	22/07/2015	Clarification when leachate head will reduce to 1m.
Further information received	06/08/2015	Amended modelling with different management periods.
Variation Determined EPR/TP3430GW/V005	05/10/2015	Varied and consolidated permit issued.
Application EPR/TP3430GW/V006 (variation and consolidation)	Withdrawn	
Application EPR/TP3430GW/V007 (variation and consolidation)	Duly made 04/03/2022	Application to extend the site, extend the time limit that the leachate level of 5 metres is allowed from 2025 to 2046 across the existing phases (Phases 1 to 11), and amend the throughput from 250,000 to 300,000 tonnes per annum.
Additional information received	17/06/2022	Response to Request for Information dated 26/05/2022 regarding Dust and Particulates Management Plan.
Additional information received	22/07/2022	Response to Schedule 5 Notice dated 19/05/2022 regarding stability, groundwater and environmental setting
Additional information received	18/11/2022	Response to Schedule 5 Notice dated 06/10/2022 regarding stability and groundwater
Additional information received	15/12/2022	Response to Request for Information dated 02/12/2022 and 08/12/2023 regarding waste types, waste acceptance and restoration plan.
Variation determined EPR/ TP3430GW/V007 Permit EPR/TP3430GW (Billing Ref: LP3502SP)	15/06/2023	Varied and consolidated permit issued in modern condition format

Other Part A installation permits relating to this installation		
Operator	Permit number	Date of issue
Augean South Limited	YP3138XB	11/05/2009

End of introductory note

## Notice of variation and consolidation

## The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies and consolidates

#### Permit number

EPR/TP3430GW

#### Issued to

Augean South Limited ("the operator")

whose registered office is

4 Rudgate Court Walton Wetherby West Yorkshire LS23 7BF

company registration number 04636789

to operate a regulated facility at

East Northants Resource Management Facility Stamford Road King's Cliffe Peterborough PE8 6XX

to the extent set out in the schedules.

The notice shall take effect from 15/06/2023.

Name	Date
Louise Hann	15/06/2023

Authorised on behalf of the Environment Agency

#### Schedule 1

The following conditions were varied as a result of an Environment Agency initiated variation:

Condition 1.2.1 – Financial Provision has been undated to require financial provision to be put in place.

Condition 2.3.2 – this condition is renumbered from 2.3.1 (b) in the previous permit – wording has not changed.

Condition 2.5.7 - this condition is amended to the wording required by the standard permit template.

Condition 2.6.1 (h), (j), (l) and (m) - these conditions are amended to include additional wording required by the standard permit template.

Condition 3.2.3 – this condition is renumbered as a result of adding 3.2.2 – wording has not changed.

Table S1.1 – Activities, as referenced by condition 2.1.1, Activity reference A3, Limits of specified activity is amended to include a limit of less than 50 tonnes maximum storage.

Table S3.2 – Point source emissions to air – emission limits and monitoring requirements, as referenced by conditions 3.1.1 and 3.5.1 has been amended to update the monitoring standard and methods to that required in the standard permit template.

Table S3.4 – Groundwater – emission limits and monitoring requirements, as referenced by condition 3.5.1 has been amended to update the monitoring standard and methods to that required in the standard permit template.

Table S3.9 – Landfill gas – other monitoring as referenced by condition 3.5.1 has been amended to update the monitoring standard and methods to that required in the standard permit template.

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

Condition 2.6.6 is amended to reference the amended restoration plan that includes the extended area.

Table S1.4 – Annual waste input limits, as referenced by condition 2.6.7, is amended to increase the annual quantity of waste from 250,000 to 300,000 tonnes of waste.

Table S1.5 – Pre-operational measures for future development, as referenced by condition 2.10.1, is amended to add additional conditions

Table S3.1 – Leachate level limits and monitoring requirements, as referenced by conditions 2.7.1, 3.1.1 and 3.5.1 has been amended to update the monitoring points (and the date by which the leachate should be reduced from 5 m to 1 m).

Table S3.4 – Groundwater - emission limits and monitoring requirements, as referenced by condition 3.5.1 has been amended to update the monitoring points and add arsenic as a parameter and amend the emission limit for naphthalene.

The following conditions are added following an Environment Agency initiated variation

Condition 2.6.1 (k) and (l) are added to the permit to update the condition to that in the standard permit template prohibiting the landfilling of medicinal, pharmaceutical and wastes that have been separately collected for re-use or recycling.

Condition 2.6.10 is added as a new standard condition to ensure that gypsum-based materials are not mixed with any biodegradable non-hazardous waste.

Condition 3.1.4 is added to ensure that the emissions to water are controlled.

Condition 3.2.2 is added as this is now a requirement of the standard permit template.

Table 2.2 – Permitted waste types for disposal at a landfill for hazardous waste, reference by condition 2.6.1 is amended removing waste type 16 01 04\* - end of life vehicles.

#### Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

## Permit

### The Environmental Permitting (England and Wales) Regulations 2016

#### Permit number

#### EPR/TP3430GW

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/TP3430GW/V007 authorising,

Augean South Limited ("the operator"),

whose registered office is

4 Rudgate Court Walton Wetherby West Yorkshire LS23 7BF

company registration number 04636789

to operate an installation at

East Northants Resource Management Facility Stamford Road King's Cliffe Peterborough PE8 6XX

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

Name	Date
Louise Hann	15/06/2023

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 The financial provision for meeting the obligations under this permit set out in the agreement made between the operator and the Environment Agency dated 16<sup>th</sup> December 2009 as varied most recently on 15<sup>th</sup> June 2023 shall be maintained by the operator throughout the subsistence of this permit and the operator shall produce evidence of such provision whenever required by the Environment Agency.
- 1.2.2 The operator shall ensure that the charges it makes for the disposal of waste in the landfill cover all of the following:
  - (a) the costs of setting up and operating the landfill;
  - (b) the costs of the financial provision required by condition 1.2.1 and 1.2.2; 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:
  - take appropriate measures to ensure that waste produced by the activities is avoided or reduced, or where waste is produced it is recovered wherever practicable or otherwise disposed of in a manner which minimises its impact on the environment;
  - (b) review and record at least every four years whether changes to those measures should be made; and
  - (c) take any further appropriate measures identified by a review.

## 2 **Operations**

#### 2.1 Permitted activities

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

#### 2.2 The site

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

#### 2.3 Operating techniques

- 2.3.1 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 Landfill Engineering

2.5.1 No construction of any new cell of the landfill shall commence until the operator has submitted construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.

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

#### 2.6 Waste acceptance

- 2.6.1 Wastes shall only be accepted for disposal if:
  - (a) they are listed in schedule 2, table S2.1; and
  - (b) they are hazardous waste or inert waste for cover (table S2.2); and
  - (c) they are not liquid waste (including waste waters but excluding sludge; and
  - (d) they are not waste which in the conditions of landfill is explosive, corrosive, oxidising, highly flammable or flammable; and

- (e) they are not hospital and other clinical infectious wastes from medical or veterinary establishments; and
- (f) they are not chemical substances from research and development or teaching activities, for example laboratory residues, which are unidentified and/or which are new and whose effects on man and/or the environment are unknown; and
- (g) all the relevant waste acceptance procedures have been completed; and
- (h) they fulfil the relevant waste acceptance criteria; and
- (i) they have not been diluted or mixed solely to meet the relevant waste acceptance criteria; and
- (j) they are wastes which have been treated, except for: inert wastes for which treatment is not technically feasible; or it is waste other than inert waste and treatment would not reduce its quantity or the hazards which it poses to human health or the environment; and
- (k) they fulfil the relevant waste acceptance criteria, except that the leaching limits set out in schedule 2, table S2.5 shall apply to the wastes listed in schedule 2, table S2.4, and
- (I) 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
- (m) 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
- 2.6.2 Wastes shall only be accepted for restoration where:
  - (a) they are listed in schedule 2, table S2.3; and
  - (b) they are accepted in accordance with a restoration plan approved in writing by the Environment Agency.
- 2.6.3 The operator shall:
  - (a) visually inspect without unloading it, waste that is not in an enclosed container or enclosed vehicle on arrival at the landfill and waste at the point of deposit; and
  - (b) be satisfied that the waste conforms to the requirements of condition 2.6.1.
- 2.6.4 Where the operator has taken samples to establish that the waste is in conformity with the documentation submitted by the holder then the samples taken shall be retained for at least one month and results of any analysis for at least two years.
- 2.6.5 The operator on accepting each delivery of waste shall provide a receipt to the person delivering it.
- 2.6.6 The total quantity of waste that shall be deposited in the landfill shall be limited by the pre-settlement levels shown on drawing "Final Restoration Plan" (reference: 2019\_008.06\_ENORTH028Rev0 dated September 2021).
- 2.6.7 The quantity of waste that is disposed of at the regulated facility in any year shall not exceed the limits in schedule 1, table S1.4.
- 2.6.8 The operator shall maintain and implement a system which ensures that a record is made of the quantity, characteristics, date of delivery and, where practicable, origin of any waste that is received for disposal or recovery and of the identity of the producer, or in the case of municipal waste and multiple collection vehicles, of the collector of such waste. Any information regarded by the operator as commercially confidential shall be clearly identified in the record.
- 2.6.9 The operator shall maintain and implement a system to record the disposal location of any hazardous waste.
- 2.6.10 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 Leachate levels

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

#### 2.8 Closure and aftercare

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

#### 2.9 Landfill gas management

- 2.9.1 The operator shall take appropriate measures, including, but not limited to, those specified in any approved landfill gas management plan, to:
  - (a) collect landfill gas; and
  - (b) control the migration of landfill gas.
- 2.9.2 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.
- 2.9.3 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; and
  - (b) implement the revised landfill gas management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

#### 2.10 Pre-operational conditions

2.10.1 The operations specified in schedule 1, table S1.5 shall not commence until the measures specified in that table have been completed.

## 3 Emissions and monitoring

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

- 3.1.1 The limits in schedule 3 shall not be exceeded.
- 3.1.2 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3, tables S3.2 and S3.3.
- 3.1.3 The limits given in schedule 3, table S3.2 shall not be exceeded, save that compliance with the emission limits in that table shall include incorporation of the uncertainty allowance stated in guidance for all flares, LFTGN05.
- 3.1.4 Where a substance is specified in schedule 3, tables S3.3 or S3.11 but no limit is set for it, the concentration of such substance in emissions to water from the relevant emission point shall be no greater than the background concentration.
- 3.1.5 The operator shall prevent the input of any hazardous substances from the activities into groundwater.
- 3.1.6 The operator shall submit to the Environment Agency a review of the Hydrogeological Risk Assessment:
  - (a) between nine and six months prior to the fourth anniversary of the granting of the permit; and
  - (b) between nine and six months prior to every subsequent six years after the fourth anniversary of the granting of the permit.

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

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
  - (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
  - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

#### 3.3 Odour

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

#### 3.4 Noise and vibration

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

#### 3.5 Monitoring

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring and any other actions specified in the following tables in schedule 3 to this permit:
  - (a) Leachate specified in tables S3.1 and S3.10;

- (b) Point source emissions specified in tables S3.2 and S3.3;
- (c) Groundwater specified in tables S3.4 and S3.8;
- (d) Landfill gas specified in tables S3.5, S3.7 and S3.9;
- (e) Surface water specified in table S3.11; and
- (f) Particulate matter specified in table S3.6.
- 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.5.3 A topographical survey of the site referenced to ordnance datum shall be carried out and shall be used to produce a plan of a scale adequate to show the surveyed features of the site:
  - (a) Annually; and
  - (b) prior to the disposal of waste in any new cell or new development area of the landfill; and
  - (c) following closure of the landfill or part of the landfill.

#### 3.6 Pests

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

## 4 Information

#### 4.1 Records

- 4.1.1 All records required to be made by this permit shall:
  - (a) be legible;
  - (b) be made as soon as reasonably practicable;
  - (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
  - (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
    - (i) the results of groundwater monitoring;
    - (ii) sub-surface landfill gas monitoring;
    - (iii) leachate levels, quality and quantities;
    - (iv) landfill gas generation and collection;

- (v) waste types and quantities;
- (vi) the location of hazardous waste deposits; and
- (vii) the specification and as built drawings of the basal, sidewall and capping engineering systems.
- 4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

#### 4.2 Reporting

- 4.2.1 The operator shall send reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.
- 4.2.2 A report or reports on the performance of the activities over the previous year ('the annual report') shall be submitted to the Environment Agency by 31st January each year or such other date as may be agreed in writing by the Agency, with the exception of 4.2.2(c) that must be provided by the end of February each year. The report(s) shall include as a minimum:
  - (a) a review of the results of the monitoring and assessment carried out in accordance with this permit against the relevant assumptions, parameters and results in the risk assessments submitted in relation to this installation and any agreed amendments thereto. The review will include written descriptions of the improvements made to operational performance during the year, action plans developed and planned improvements for the coming year;
  - (b) the energy consumed at the site, reported in the format set out in schedule 4 table S4.3
  - (c) the annual production/treatment set out in schedule 4, table S4.2;
  - (d) the topographical surveys required by condition 3.5.3 other than those submitted as part of a CQA validation report;
  - (e) the volumetric difference (reported in cubic metres) between the most recent topographical survey and the previous annual topographical survey i.e. the additional volume of the landfill void that is occupied by waste;
  - (f) an assessment of the settlement behaviour of the landfill body based on the difference between the most recent topographical survey and previous annual topographical survey for the areas of the landfill which did not receive waste between the surveys;
  - (g) a calculation of the remaining capacity (reported in cubic metres) derived from the presettlement 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.
  - (i) a review detailing any alternative disposal or treatment options considered for the waste streams specified in schedule 2, table S2.4.
- 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:

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

In any other case:

- (c) the death of any of the named operators (where the operator consists of more than one named individual);
- (d) any change in the operator's name(s) or address(es); and
- (e) 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 Activities				
Activity reference	WFD Annex I and II operations (where applicable)	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
A1	D5 – Specially engineered landfill and R10 – Land treatment resulting in benefit to agriculture or ecology	Section 5.2 Part A(1)(a), The disposal of waste in a landfill.	Landfill for hazardous waste and landfill restoration	Receipt, handling, storage and disposal of wastes, consisting of the types and quantities specified in conditions 2.6, as an integral part of landfilling.
Directly Ass	ociated Activities		-	
A2	N/A	-	Management of leachate prior to treatment at the Leachate Treatment Plant which is a separately permitted activity (Ref: YP3138XB) or a leachate treatment facility elsewhere	Leachate arising from the landfill.
A3	D15 - Storage of Hazardous waste prior to disposal	-	Temporary storage of hazardous waste in drums	Handling of drums on the site containing hazardous waste (as specified in Table S2.1) destined for disposal in the landfill site under Activity A1. Storage of hazardous waste shall be less than 50 tonnes at any one time.
A4	N/A	-	Flaring of landfill gas for disposal in an appliance.	Landfill gas arising from the landfill.

Description	Parts	Date received
Application	The response to sections 2, 5, 6, 7, 8, 9, 10, in the Application.	28/08/2008
Additional information in letter ref AU/KC/CN/2568/01	All	05/01/2009
Additional information in letter ref AU/KC/GT/1501/01	All	18/02/2009
Additional information in letter ref AU/KC/CN/2568/02	All	10/03/2009
Additional information in letter ref AU/KC/CN/2658/01	All	24/03/2009
Additional information in letter ref AU/KC/GT/1501/01	All	14/04/2009
Monitoring Action Plans East Northants Resource Management Facility (Emissions Management Plan)	All	16/09/2008
Application EPR/TP3430GW/V005	All, excluding Tables HRA 5 and LFGRA 1.	06/10/2014
Response to request for information (Schedule 5 notice dated 11/03/2015)Response to questions: 2 a) Figure 1 - Monitoring and Extraction Point Plan 2 b) Revised leachate monitoring (Table HRA5 revised) 2 c) Revised groundwater monitoring (Table HRA5 revised) 2 d) Revised surface water monitoring (Table HRA5 revised) 2 e) Revised landfill gas monitoring (Table LFGRA1) and Landfill Gas and Ambient Air Monitoring Action Plan, dated April 2015		22/04/2015
	3 Information on the Restoration Plan	
Response to request for information (email dated 11/06/2015)	Email response date 22/07/15 Response to question 1d) Date for reduction in leachate limit	22/07/2015
Application EPR/TP3430GW/V007	All, excluding Table HRA 11 of Appendix C – Hydrogeological Risk Assessment	07/05/2021, 20/05/2021 and 17/02/2022

Table S1.2 Operating techniques			
Description	Parts	Date received	
Response to Request for Information dated 26/05/2022	Dust and Particulates Management Plan reference KC06 – ENRMF Landfill DEMP	17/06/2022	
Response to Schedule 5 Notice dated 19/05/2022	Response to all questions	22/07/2022	
Response to Request for Information dated 22/09/2022	Response to all questions	27/09/2022	
Response to Schedule 5 Notice dated 06/10/2022	Response to all questions	18/11/2022	
Response to Request for Information dated 08/12/2022	Response to all questions	15/12/2022	

Table S1.3 Improvement programme requirements		
Reference	Reference Requirement	
1	The operator shall submit to the Environment Agency for approval details of the waste types, quantities and acceptance criteria for wastes that are and will be accepted on site for the purpose of landfill restoration.	Superseded
2	The operator shall submit to the Environment Agency a pre-settlement contour drawing to show pre-settlement contours.	
3	The operator shall undertake of review and where necessary update all existing monitoring action plans to take account of any changes to monitoring requirements in the Permit. The operator shall submit the updated plans to the Environment Agency for approval.	
4	The operator shall submit to the Environment Agency a revise MEPP drawing to show all the compliance and monitoring points. The operator shall submit the updated plans to the Environment Agency for approval.	17/07/2023

Table S1.4 Annual waste input limits		
Category	Limit tonnes/year	
Hazardous waste	300,000	
Inert Waste for cover	300,000	
Waste for restoration	As agreed in accordance with Pre-operational measure 1 in Table S1.5	
Total	300,000	

Table S1.5 Pre-	Fable S1.5 Pre-operational measures for future development		
Reference	Operation	Pre-operational measures	
1	Prior to importation of waste soils for restoration of the landfill.	The operator shall submit to the Environment Agency for approval details of the types and quantity of waste to be used for the restoration of the landfill, and an assessment of the risks to the environment from the use of these specific wastes together with any additional management measures necessary to manage the risks.	
2	Any earthworks for phases 17, 18 19 and 20	The operator shall submit a report to the Environment Agency for approval detailing the final design for the specified phases showing the extent of the agreed standoff from the water, gas pipeline and/or other services running adjacent to the phase. The report shall include detailed construction proposals, drawings of the construction of the sidewall and standoff containing the pipeline (including cross sections) and evidence that the extent of the standoff has been agreed with the appropriate utility provider. No earthworks shall commence in phases 17, 18, 19 or 20 of the site prior to and unless the Environment Agency has given prior written permission under this condition.	
3	a) Surface Water discharge to the swallow hole and surface water point in Phases 12 to 21 only after the capping	There shall be no discharge of any surface water from the operational area of the landfill site prior to the relevant phases of the site draining to the swallow hole being fully capped and restored and the Environment Agency has given prior written permission under this condition. Where approved, the discharge of surface water to the swallow hole(s) following capping and restoration can be carried out in successive stages prior to the completion of all landfill phases at the site.	
		Prior to any surface water from the capped area of the landfill site being discharged-to the swallow hole(s), the operator shall provide details of the final design proposals for the ditch flowing from the restored landfill areas towards the swallow hole(s) to the Environment Agency for written approval.	

Reference	Operation	Pre-operational measures           The actions and outcomes of the proposal shall be implemented by the operator from the date of approval in writing by the Environment Agency subject to any such amendments or additions as notified by the Environment Agency.	
	<ul> <li>b) Discharge to the swallow hole(s) and surface water point(s) in Phases 12 to 21 only after the capping</li> </ul>	Prior to any surface water from the capped area of the landfill site being discharged-to the swallow hole(s), the operator shall provide a report to the Environment Agency for written approval detailing discharge limits for the discharge to the swallow hole(s) and other points together with any additional management measures necessary to manage the risks, as part of the final design proposals for the ditch flowing from the restored landfill areas towards the swallow hole(s).	
4	a) Within 6 months of the permit being issued and prior to the submission of ground	The operator shall submit a report for the Environment Agency's written approval with the following:-	
	investigation plan whichever is the soonest.	i. Details of any additional site infrastructure that requires to be installed.	
		ii. The result of a tracer dye tests to map the dominant groundwater flow paths and flow rates, and fracture patterns.	
		No earthworks shall commence in phases 14 or 21 of the site prior to and unless the Environment Agency has given prior written permission under this condition.	
	b) Prior to any earthworks for the construction of phases 14 and 21.	The operator shall submit a detailed ground investigation plan (SI plan), for the Environment Agency's written approval, which details the investigative works to be carried out to ascertain the nature, distribution and extent of fracturing and voids, determine the extent of dolines, and to confirm the site conceptual model and the site design.	
		The ground investigation plan shall include, but not be limited to:-	
		a) The plan for the investigation as stated in the schedule 5 response dated 18/11/2022 as a minimum.	
		b) Full construction details of any additional site infrastructure that requires to be installed.	
		No earthworks shall commence in phases 14 or 21 of the site prior to and unless the Environment Agency has given prior written permission under this condition.	
	c) Prior to any earthworks for the construction of phases 14 and 21.	The operator shall carry out the site investigation in accordance with approved SI plan ir 4b) above, subject to any such amendments or additions as notified by the Environment Agency, from the date approved in writing by the Environment Agency.	

# Schedule 2 – List of permitted wastes

Waste code	Description
01	Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals
01 03	wastes from physical and chemical processing of metalliferous minerals
01 03 04*	acid-generating tailings from processing of sulphide ore
01 03 05*	other tailings containing hazardous substances
01 03 07*	other wastes containing hazardous substances from physical and chemical processing o metalliferous minerals
01 04	wastes from physical and chemical processing of non-metalliferous minerals
01 04 07*	wastes containing hazardous substances from physical and chemical processing of non- metalliferous minerals
01 05	drilling muds and other drilling wastes
01 05 05*	oil-containing drilling muds and wastes
01 05 06*	drilling muds and other drilling wastes containing hazardous substances
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 08*	agrochemical waste containing hazardous substances
03	WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURNITURE, PULP, PAPER AND CARDBOARD
03 02	wastes from wood preservation
03 02 01*	non-halogenated organic wood preservatives
03 02 02*	organochlorinated wood preservatives
03 02 03*	organometallic wood preservatives
03 02 04*	inorganic wood preservatives
03 02 05*	other wood preservatives containing hazardous substances
04	Wastes from the leather, fur and textile industries
04 01	wastes from the leather and fur industry
04 01 03*	degreasing wastes containing solvents without a liquid phase
04 02	wastes from the textile industry
04 02 14*	wastes from finishing containing organic solvents
04 02 16*	dyestuffs and pigments containing hazardous substances
04 02 19*	sludges from on-site effluent treatment containing hazardous substances
05	Wastes from petroleum refining, natural gas purification and pyrolytic treatment of coal
05 01	wastes from petroleum refining
05 01 02*	desalter sludges

Table S2.1 Permitted waste types for disposal at a landfill for hazardous waste	
Waste code	Description
05 01 03*	tank bottom sludges
05 01 04*	acid alkyl sludges
05 01 05*	oil spills
05 01 06*	oily sludges from maintenance operations of the plant or equipment
05 01 07*	acid tars
05 01 08*	other tars
05 01 09*	sludges from on-site effluent treatment containing hazardous substances
05 01 11*	wastes from cleaning of fuels with bases
05 01 12*	oil containing acids
05 01 15*	spent filter clays
05 06	wastes from the pyrolytic treatment of coal
05 06 01*	acid tars
05 06 03*	other tars
05 07	wastes from natural gas purification and transportation
05 07 01*	wastes containing mercury
06	Wastes from inorganic chemical processes
06 02	wastes from the MFSU of bases
06 02 01*	calcium hydroxide
06 02 03*	ammonium hydroxide
06 02 04*	sodium and potassium hydroxide
06 02 05*	other bases
06 03	wastes from the MFSU of salts and their solutions and metallic oxides
06 03 11*	solid salts and solutions containing cyanides
06 03 13*	solid salts and solutions containing heavy metals
06 03 15*	metallic oxides containing heavy metals
06 04	metal-containing wastes other than those mentioned in 06 03
06 04 03*	wastes containing arsenic
06 04 04*	wastes containing mercury
06 04 05*	wastes containing other heavy metals
06 05	sludges from on-site effluent treatment
06 05 02*	sludges from on-site effluent treatment containing hazardous substances
06 06	wastes from the MFSU of sulphur chemicals, sulphur chemical processes and desulphurisation processes
06 06 02*	wastes containing hazardous sulphides
06 07	wastes from the MFSU of halogens and halogen chemical processes
06 07 01*	wastes containing asbestos from electrolysis
06 07 02*	activated carbon from chlorine production
06 07 03*	barium sulphate sludge containing mercury

Table S2.1 Pe	Table S2.1 Permitted waste types for disposal at a landfill for hazardous waste	
Waste code	Description	
06 09	wastes from the MSFU of phosphorous chemicals and phosphorous chemical processes	
06 09 03*	calcium-based reaction wastes containing or contaminated with hazardous substances	
06 10	wastes from the MFSU of nitrogen chemicals, nitrogen chemical processes and fertiliser manufacture	
06 10 02*	wastes containing hazardous substances	
06 13	wastes from inorganic chemical processes not otherwise specified	
06 13 01*	inorganic plant protection products, wood-preserving agents and other biocides	
06 13 04*	wastes from asbestos processing	
06 13 05*	soot	
07	Wastes from organic chemical processes	
07 01	wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals	
07 01 07*	halogenated still bottoms and reaction residues	
07 01 08*	other still bottoms and reaction residues	
07 01 09*	halogenated filter cakes and spent absorbents	
07 01 10*	other filter cakes and spent absorbents	
07 01 11*	sludges from on-site effluent treatment containing hazardous substances	
07 02	wastes from the MFSU of plastics, synthetic rubber and man-made fibres	
07 02 07*	halogenated still bottoms and reaction residues	
07 02 08*	other still bottoms and reaction residues	
07 02 09*	halogenated filter cakes and spent absorbents	
07 02 10*	other filter cakes and spent absorbents	
07 02 11*	sludges from on-site effluent treatment containing hazardous substances	
07 02 14*	wastes from additives containing hazardous substances	
07 03	wastes from the MFSU of organic dyes and pigments (except 06 11)	
07 03 07*	halogenated still bottoms and reaction residues	
07 03 08*	other still bottoms and reaction residues	
07 03 09*	halogenated filter cakes and spent absorbents	
07 03 10*	other filter cakes and spent absorbents	
07 03 11*	sludges from on-site effluent treatment containing hazardous substances	
07 04	wastes from the MFSU of organic plant protection products (except 02 01 08 and 02 01 09), wood preserving agents (except 03 02) and other biocides	
07 04 07*	halogenated still bottoms and reaction residues	
07 04 08*	other still bottoms and reaction residues	
07 04 09*	halogenated filter cakes and spent absorbents	
07 04 10*	other filter cakes and spent absorbents	
07 04 11*	sludges from on-site effluent treatment containing hazardous substances	
07 04 13*	solid wastes containing hazardous substances	

Table S2.1 Permitted waste types for disposal at a landfill for hazardous waste	
Waste code	Description
07 05	wastes from the MFSU of pharmaceuticals
07 05 07*	halogenated still bottoms and reaction residues
07 05 08*	other still bottoms and reaction residues
07 05 09*	halogenated filter cakes and spent absorbents
07 05 10*	other filter cakes and spent absorbents
07 05 11*	sludges from on-site effluent treatment containing hazardous substances
07 05 13*	solid wastes containing hazardous substances
07 06	wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics
07 06 07*	halogenated still bottoms and reaction residues
07 06 08*	other still bottoms and reaction residues
07 06 09*	halogenated filter cakes and spent absorbents
07 06 10*	other filter cakes and spent absorbents
07 06 11*	sludges from on-site effluent treatment containing hazardous substances
07 07	wastes from the MFSU of fine chemicals and chemical products not otherwise specified
07 07 07*	halogenated still bottoms and reaction residues
07 07 08*	other still bottoms and reaction residues
07 07 09*	halogenated filter cakes and spent absorbents
07 07 10*	other filter cakes and spent absorbents
07 07 11*	sludges from on-site effluent treatment containing hazardous substances
08	Wastes from the manufacture, formulation, supply and use (MFSU) of coatings (paints, varnishes and vitreous enamels), adhesives, sealants and printing inks
08 01	wastes from MFSU and removal of paint and varnish
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances
08 01 13*	sludges from paint or varnish containing organic solvents or other hazardous substances
08 01 15*	aqueous sludges containing paint or varnish containing organic solvents or other hazardous substances
08 01 17*	wastes from paint or varnish removal containing organic solvents or other hazardous substances
08 01 21*	waste paint or varnish remover
08 03	wastes from MFSU of printing inks
08 03 12*	waste ink containing hazardous substances
08 03 14*	ink sludges containing hazardous substances
08 03 16*	waste etching solutions
08 03 17*	waste printing toner containing hazardous substances
08 04	wastes from MFSU of adhesives and sealants (including water proofing products)
08 04 09*	waste adhesives and sealants containing organic solvents or other hazardous substances

Table S2.1 Permitted waste types for disposal at a landfill for hazardous waste		
Waste code	Description	
08 04 11*	adhesive and sealant sludges containing organic solvents or other hazardous substances	
08 04 13*	aqueous sludges containing adhesives or sealants containing organic solvents or other hazardous substances	
08 05	wastes not otherwise specified in 08	
08 05 01*	waste isocyanates	
09	Wastes from the photographic industry	
09 01	wastes from the photographic industry	
09 01 06*	wastes containing silver from on-site treatment of photographic wastes	
09 01 11*	single-use cameras containing batteries included in 16 06 01, 16 06 02 or 16 06 03	
10	Wastes from thermal processes	
10 01	wastes from power stations and other combustion plants (except 19)	
10 01 04*	oil fly ash and boiler dust	
10 01 13*	fly ash from emulsified hydrocarbons used as fuel	
10 01 14*	bottom ash, slag and boiler dust from co-incineration containing hazardous substances	
10 01 16*	fly ash from co-incineration containing hazardous substances	
10 01 18*	wastes from gas cleaning containing hazardous substances	
10 01 20*	sludges from on-site effluent treatment containing hazardous substances	
10 01 22*	aqueous sludges from boiler cleansing containing hazardous substances	
10 02	wastes from the iron and steel industry	
10 02 07*	solid wastes from gas treatment containing hazardous substances	
10 02 11*	wastes from cooling-water treatment containing oil	
10 02 13*	sludges and filter cakes from gas treatment containing hazardous substances	
10 03	wastes from aluminium thermal metallurgy	
10 03 04*	primary production slags	
10 03 08*	salt slags from secondary production	
10 03 09*	black drosses from secondary production	
10 03 17*	tar-containing wastes from anode manufacture	
10 03 19*	flue-gas dust containing hazardous substances	
10 03 21*	other particulates and dust (including ball-mill dust) containing hazardous substances	
10 03 23*	solid wastes from gas treatment containing hazardous substances	
10 03 25*	sludges and filter cakes from gas treatment containing hazardous substances	
10 03 27*	wastes from cooling-water treatment containing oil	
10 03 29*	wastes from treatment of salt slags and black drosses containing hazardous substance	
10 04	wastes from lead thermal metallurgy	
10 04 01*	slags from primary and secondary production	
10 04 02*	dross and skimmings from primary and secondary production	
10 04 03*	calcium arsenate	
10 04 00		

Table S2.1 Per	Table S2.1 Permitted waste types for disposal at a landfill for hazardous waste	
Waste code	Description	
10 04 05*	other particulates and dust	
10 04 06*	solid wastes from gas treatment	
10 04 07*	sludges and filter cakes from gas treatment	
10 04 09*	wastes from cooling-water treatment containing oil	
10 05	wastes from zinc thermal metallurgy	
10 05 03*	flue-gas dust	
10 05 05*	solid waste from gas treatment	
10 05 06*	sludges and filter cakes from gas treatment	
10 05 08*	wastes from cooling-water treatment containing oil	
10 06	wastes from copper thermal metallurgy	
10 06 03*	flue-gas dust	
10 06 06*	solid wastes from gas treatment	
10 06 07*	sludges and filter cakes from gas treatment	
10 06 09*	wastes from cooling-water treatment containing oil	
10 07	wastes from silver, gold and platinum thermal metallurgy	
10 07 07*	wastes from cooling-water treatment containing oil	
10 08	wastes from other non-ferrous thermal metallurgy	
10 08 08*	salt slag from primary and secondary production	
10 08 12*	tar-containing wastes from anode manufacture	
10 08 15*	flue-gas dust containing hazardous substances	
10 08 17*	sludges and filter cakes from flue-gas treatment containing hazardous substances	
10 08 19*	wastes from cooling-water treatment containing oil	
10 09	wastes from casting of ferrous pieces	
10 09 05*	casting cores and moulds which have not undergone pouring containing hazardous substances	
10 09 07*	casting cores and moulds which have undergone pouring containing hazardous substances	
10 09 09*	flue-gas dust containing hazardous substances	
10 09 11*	other particulates containing hazardous substances	
10 09 13*	waste binders containing hazardous substances	
10 09 15*	waste crack-indicating agent containing hazardous substances	
10 10	wastes from casting of non-ferrous pieces	
10 10 05*	casting cores and moulds which have not undergone pouring, containing hazardous substances	
10 10 07*	casting cores and moulds which have undergone pouring, containing hazardous substances	
10 10 09*	flue-gas dust containing hazardous substances	
10 10 11*	other particulates containing hazardous substances	
10 10 13*	waste binders containing hazardous substances	

Table S2.1 Permitted waste types for disposal at a landfill for hazardous waste	
Waste code	Description
10 10 15*	waste crack-indicating agent containing hazardous substances
10 11	wastes from manufacture of glass and glass products
10 11 09*	waste preparation mixture before thermal processing, containing hazardous substances
10 11 11*	waste glass in small particles and glass powder containing heavy metals (for example from cathode ray tubes)
10 11 13*	glass-polishing and -grinding sludge containing hazardous substances
10 11 15*	solid wastes from flue-gas treatment containing hazardous substances
10 11 17*	sludges and filter cakes from flue-gas treatment containing hazardous substances
10 11 19*	solid wastes from on-site effluent treatment containing hazardous substances
10 12	wastes from manufacture of ceramic goods, bricks, tiles and construction products
10 12 09*	solid wastes from gas treatment containing hazardous substances
10 12 11*	wastes from glazing containing heavy metals
10 13	wastes from manufacture of cement, lime and plaster and articles and products made from them
10 13 09*	wastes from asbestos-cement manufacture containing asbestos
10 13 12*	solid wastes from gas treatment containing hazardous substances
10 14	waste from crematoria
10 14 01*	waste from gas cleaning containing mercury
11	Wastes from chemical surface treatment and coating of metals and other materials; non-ferrous hydro-metallurgy
11 01	wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising)
11 01 08*	phosphatising sludges
11 01 09*	sludges and filter cakes containing hazardous substances
11 01 13*	degreasing wastes containing hazardous substances
11 01 15*	eluate and sludges from membrane systems or ion exchange systems containing hazardous substances
11 01 16*	saturated or spent ion exchange resins
11 01 98*	other wastes containing hazardous substances
11 02	wastes from non-ferrous hydrometallurgical processes
11 02 02*	sludges from zinc hydrometallurgy (including jarosite, goethite)
11 02 05*	wastes from copper hydrometallurgical processes containing hazardous substances
11 02 07*	other wastes containing hazardous substances
11 03	sludges and solids from tempering processes
11 03 01*	wastes containing cyanide
11 03 02*	other wastes
11 05	wastes from hot galvanising processes

Table S2.1 Per	mitted waste types for disposal at a landfill for hazardous waste
Waste code	Description
11 05 04*	spent flux
12	Wastes from shaping and physical and mechanical surface treatment of metals and plastics
12 01	wastes from shaping and physical and mechanical surface treatment of metals and plastics
12 01 12*	spent waxes and fats
12 01 14*	machining sludges containing hazardous substances
12 01 16*	waste blasting material containing hazardous substances
12 01 18*	metal sludge (grinding, honing and lapping sludge) containing oil
12 01 19*	readily biodegradable machining oil
12 01 20*	spent grinding bodies and grinding materials containing hazardous substances
13	Oil wastes and wastes of liquid fuels (except edible oils, and those in chapters 05 12 and 19)
13 08	oil wastes not otherwise specified
13 08 01*	desalter sludges or emulsions
13 08 02*	other emulsions
13 08 99*	wastes not otherwise specified
14	Waste organic solvents, refrigerants and propellants (except 07 and 08)
14 06	waste organic solvents, refrigerants and foam/aerosol propellants
14 06 04*	sludges or solid wastes containing halogenated solvents
14 06 05*	sludges or solid wastes containing other solvents
15	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified
15 01	packaging (including separately collected municipal packaging waste)
15 01 10*	packaging containing residues of or contaminated by hazardous substances
15 01 11*	metallic packaging containing a hazardous solid porous matrix (for example asbestos), including empty pressure containers
15 02	absorbents, filter materials, wiping cloths and protective clothing
15 02 02*	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances
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 08*	components containing mercury
16 01 11*	brake pads containing asbestos
16 01 21*	hazardous components other than those mentioned in 16 01 07 to 16 01 11 and 16 01 13 and 16 01 14
16 02	wastes from electrical and electronic equipment
16 02 12*	discarded equipment containing free asbestos
16 02 13*	discarded equipment containing hazardous components other than those mentioned in 16 02 09 to 16 02 12

Table S2.1 Permitted waste types for disposal at a landfill for hazardous waste	
Waste code	Description
16 02 15*	hazardous components removed from discarded equipment
16 03	off-specification batches and unused products
16 03 03*	inorganic wastes containing hazardous substances
16 05	gases in pressure containers and discarded chemicals
16 05 06*	laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals
16 05 07*	discarded inorganic chemicals consisting of or containing hazardous substances
16 07	wastes from transport tank, storage tank and barrel cleaning (except 05 and 13)
16 07 08*	wastes containing oil
16 07 09*	wastes containing other hazardous substances
16 08	spent catalysts
16 08 02*	spent catalysts containing hazardous transition metals or hazardous transition metal compounds
16 08 05*	spent catalysts containing phosphoric acid
16 08 07*	spent catalysts contaminated with hazardous substances
16 11	waste linings and refractories
16 11 01*	carbon-based linings and refractories from metallurgical processes containing hazardous substances
16 11 03*	other linings and refractories from metallurgical processes containing hazardous substances
16 11 05*	linings and refractories from non-metallurgical processes containing hazardous substances
17	Construction and demolition wastes (including excavated soil from contaminated sites)
17 01	concrete, bricks, tiles and ceramics
17 01 06*	mixtures of, or separate fractions of concrete, bricks, tiles and ceramics containing hazardous substances
17 02	wood, glass and plastic
17 02 04*	glass, plastic and wood containing or contaminated with hazardous substances
17 03	bituminous mixtures, coal tar and tarred products
17 03 01*	bituminous mixtures containing coal tar
17 03 03*	coal tar and tarred products
17 04	metals (including their alloys)
17 04 09*	metal waste contaminated with hazardous substances
17 04 10*	cables containing oil, coal tar and other hazardous substances
17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 03*	soil and stones containing hazardous substances
17 05 05*	dredging spoil containing hazardous substances
17 05 07*	track ballast containing hazardous substances
17 06	insulation materials and asbestos-containing construction materials

Table S2.1 Permitted waste types for disposal at a landfill for hazardous waste	
Waste code	Description
17 06 01*	insulation materials containing asbestos
17 06 03*	other insulation materials consisting of or containing hazardous substances
17 06 05*	construction materials containing asbestos
17 08	gypsum-based construction material
17 08 01*	gypsum-based construction materials contaminated with hazardous substances
17 09	other construction and demolition wastes
17 09 01*	construction and demolition wastes containing mercury
17 09 03*	other construction and demolition wastes (including mixed wastes) containing hazardous substances
18	Wastes from human or animal health care and/or related research (except kitchen and restaurant wastes not arising from immediate health care)
18 01	wastes from natal care, diagnosis, treatment or prevention of disease in humans
18 01 10*	amalgam waste from dental care
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use
19 01	wastes from incineration or pyrolysis of waste
19 01 05*	filter cake from gas treatment
19 01 07*	solid wastes from gas treatment
19 01 10*	spent activated carbon from flue-gas treatment
19 01 11*	bottom ash and slag containing hazardous substances
19 01 13*	fly ash containing hazardous substances
19 01 15*	boiler dust containing hazardous substances
19 01 17*	pyrolysis wastes containing hazardous substances
19 02	wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
19 02 04*	premixed wastes composed of at least one hazardous waste
19 02 05*	sludges from physico/chemical treatment containing hazardous substances
19 02 09*	solid combustible wastes containing hazardous substances
19 02 11*	other wastes containing hazardous substances
19 03	stabilised/solidified wastes
19 03 04*	wastes marked as hazardous, partly stabilised other than 19 03 08
19 03 06*	wastes marked as hazardous, solidified
19 04	vitrified waste and wastes from vitrification
19 04 02*	fly ash and other flue-gas treatment wastes
19 04 03*	non-vitrified solid phase
19 08	wastes from waste water treatment plants not otherwise specified
19 08 06*	saturated or spent ion exchange resins
19 08 07*	solutions and sludges from regeneration of ion exchangers
19 08 08*	membrane system waste containing heavy metals

Table S2.1 Permitted waste types for disposal at a landfill for hazardous waste	
Waste code	Description
19 08 10*	grease and oil mixture from oil/water separation other than those mentioned in 19 08 09
19 08 11*	sludges containing hazardous substances from biological treatment of industrial waste water
19 08 13*	sludges containing hazardous substances from other treatment of industrial waste water
19 10	wastes from shredding of metal-containing wastes
19 10 03*	fluff-light fraction and dust containing hazardous substances
19 10 05*	other fractions containing hazardous substances
19 11	wastes from oil regeneration
19 11 01*	spent filter clays
19 11 02*	acid tars
19 11 04*	wastes from cleaning of fuel with bases
19 11 05*	sludges from on-site effluent treatment containing hazardous substances
19 11 07*	wastes from flue-gas cleaning
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 11*	other wastes (including mixtures of materials) from mechanical treatment of waste containing hazardous substances
19 13	wastes from soil and groundwater remediation
19 13 01*	solid wastes from soil remediation containing hazardous substances
19 13 03*	sludges from soil remediation containing hazardous substances
19 13 05*	sludges from groundwater remediation containing hazardous substances
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 14*	acids
20 01 15*	alkalines
20 01 17*	photochemicals
20 01 19*	pesticides
20 01 27*	paint, inks, adhesives and resins containing hazardous substances
20 01 29*	detergents containing hazardous substances
20 01 35*	discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components

Table S2.2 Permitted waste types – inert waste cover for hazardous waste landfills	
Waste code	Description
10	Wastes from thermal processes
10 11	wastes from manufacture of glass and glass products
10 11 03	waste glass-based fibrous materials
15	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified

Table S2.2 Per	rmitted waste types – inert waste cover for hazardous waste landfills			
Waste code	Description			
15 01	packaging (including separately collected municipal packaging waste)			
15 01 07	glass packaging			
17	Construction and demolition wastes (including excavated soil from contaminated sites)			
17 01	concrete, bricks, tiles and ceramics			
17 01 01	concrete			
17 01 02	bricks			
17 01 03	tiles and ceramics			
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06			
17 02	wood, glass and plastic			
17 02 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			
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	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified			
19 12 05	glass			
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			

Table S2.3 Permitted waste types accepted for restoration				
Waste code	Description			
As agreed in acc	cordance with Pre-operational measure 1 in table S1.5			

Table S2.4 Specified Granular Waste with elevated WAC limits				
Waste code	Description	Component		
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use			
19 01	wastes from incineration or pyrolysis of waste			
19 01 07*	Solid waste from gas treatment	Chloride, Lead, TDS		
19 03	stabilised/solidified wastes			
19 03 04*	Waste marked as hazardous, partly stabilised other than 19 03 08	Chloride, Lead, TDS		

Table S2.5 WAC Limits for Specified Granular Wastes				
Component	L/S = 10 I/kg Leaching limit (mg/kg dry substance)			
Chloride	<75,000			
Lead	<150			
Total Dissolved Solids (TDS) <sup>1</sup> <300,000				
<sup>1</sup> The value for TDS can be used alternatively to values for Chloride				

# Schedule 3 – Emissions and monitoring

Monitoring point reference/ Description	Limit	Monitoring frequency	Monitoring standard and method
Operational Cells or Phases (Any cells or pha	ases that do not have a fin	al engineered cap	agreed in accordance with the landfill engineering condition, <b>2.5</b> )
KCLW1A1, KCLW1A2, KCLW1B1, KCLW1B2, KCLW2A1, KCLW2A2, KCLW2A3, KCLW2B2, KCLW4A1, KCLW4A2, KCLW4A3, KCLW4B1,KCLW4B2, KCLW4B3, KCLW5A1, KCLW5A2, KCLW5A3, KCLW5B1,KCLW5B2, KCLW5B3, KCLW6A2, KCLW6A3, KCLW7A2, KCLW7A3, KCLW8A2, KCLW8A3, KCLW10A2, KCLW10A3, KCLW11A2, KCLW11A3 as shown on MEPP dated as per approved submission in IC 4.	5m above cell base 1m above cell base from 31/12/2046	Monthly	As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (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.
KCLW12-2, KCLW12-3, KCLW13-2, KCLW13-3, KCLW14-2, KCLW14-3, KCLW15-2, KCLW15-3, KCLW16-2, KCLW16-3, KCLW17-2, KCLW17-3, KCLW18-2, KCLW18-3, KCLW19-2, KCLW19-3, KCLW20-2, KCLW20-3, KCLW21-2 and KCLW21- 3 as shown on MEPP dated as per approved submission in IC 4.	1m above cell base		

Table S3.1 Leachate level limits and monitoring requirements					
Monitoring point reference/ Description	Limit	Monitoring frequency	Monitoring standard and method		
Non Operational Cells or Phases (Any cells or phases that have a final engineered cap agreed in accordance with the landfill engineering condition, 2.5)					
KCLW3A1, KCLW3A2, KCLW3A3, KCLW3B1, KCLW3B2, KCLW3B3 KCLW6A1 and KCLW7A1 as shown on MEPP dated as per approved submission in IC 4.	5m above cell base 1m above cell base from 31/12/2046	Quarterly	As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (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.		

Emission point Ref. & Location	Parameter	Source	Limit (including unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
High Temp Flare 1 as	Oxides of Landfill Nitrogen Gas	150 mg/m <sup>3</sup>	Hourly Annually mean	Annually	Monitoring method shall be as per <u>monitoring-stack-emissions-</u> <u>techniques-and-standards-for-periodic-monitoring</u> or such other	
shown on Plan ESID 2	СО	Flares	50 mg/m <sup>3</sup>			subsequent guidance as may be agreed in writing with the Environment Agency
(AU/KCW/12- 20/22132)	Total VOCs	I/KCW/12- Total 10 mg/m <sup>3</sup>	Monitoring is unnecessary where the flare is active for <10% of the year.			
dated 26/03/2021					Limits shall be based on normal operating conditions. Temperature: 0°C (273K); pressure: 101.3 kPa and oxygen: 3 percent (dry gas).	
						Uncertainty in limits shall be calculated in accordance with LFTGN05

Emission point Ref. & Location	Parameter	Source	Limit (incl unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
SWSEOFALL As shown on	Suspended Solids	Surface Water	40 mg/l	Spot Sample	Monthly	As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater
drawing reference MEPP dated	Ammoniacal <1mg/l Nitrogen	and Surface Water' (February 2003), Horizontal Guidance Note H1 – Environmental Risk Assessment for permits, Annex J, version 2, (April 2010) or such				
as per	Chloride		250 mg/l			other subsequent guidance as may be agreed in writing
approved submission in IC 4.	рН	pH Between pH 6 and pH 9		with the Environment Agency.		
10 4.	Oil and Grease		No visible			
	Electrical Conductivity		No limit set			
Swallow hole monitoring points SWSWALLN and SWSWALLS (discharging only after each phase 12 to 14 and 15 to 21 have been capped) as shown on MEPP dated as per approved submission in IC 4.	As per pre- operational condition PO 3		As per pre- operational condition PO 3	As per pre- operational condition PO 3	As per pre- operational condition PO 3	

Table S3.4 Groundw	ater – emission limit	s and monitoring re	equirements		
Monitoring point reference	Parameter	Limit (including unit)	Reference Period	Monitoring frequency	Monitoring standard or method
All downstream groundwater	Ammoniacal Nitrogen	0.39 mg/l	Spot Sample	'Monitoring of Landfill Lead Surface Water' (February 2 your environmental permit	As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and
boreholes (K04, K05, K06A,	Arsenic	0.035 mg/l			Surface Water' (February 2003), risk assessments for your environmental permit (www.gov.uk) or such other
K07, K08, K11, K12,	Cadmium	0.0007 mg/l			subsequent guidance as may be agreed in writing with
K13A, K14A, K15A, K16, K21, K25, K26,	Chloride	250 mg/l			
K16, K21, K25, K26, K34, K35A. K36, K37 and K38) as shown on MEPP dated as per approved submission in IC 4.	Dichlorprop	0.00005 mg/l			
	Manganese	0.46 mg/l			
	Naphthalene	0.000075 mg/l			
	Toluene	0.001 mg/l	]		
	Trichloroethene	0.001 mg/l	]		
	Zinc	0.11 mg/l	]		

Table S3.5 Landfill gas in external monitoring boreholes – limits and monitoring requirements						
Monitoring point Ref. /description	Parameter	Limit (including units)	Monitoring frequency	Monitoring standard or method		
K03A, K10	Methane	1 %v/v	Monthly	As per LFTGN03 (September 2004) or such other subseque		
As shown on drawing reference MEPP dated as per	Oxygen	no limit		guidance as may be agreed in writing with the Environment Agency.		
	Atmospheric pressure	no limit				
approved submission in IC 4.	Differential pressure	no limit		Record whether the ground is:		

Table S3.5 Landfill g	jas in external monitorii	ng boreholes – limits and	monitoring requ	irements	
Monitoring point Ref. /description	Parameter	Limit (including units)	Monitoring frequency	Monitoring standard or method	
K03A	Carbon Dioxide	8.0% v/v		waterlogged	
As shown on				frozen	
drawing reference MEPP dated as per approved submission in IC 4.				snow covered	
K10		8.5 %v/v			
As shown on drawing reference MEPP dated as per approved submission in IC 4.					

Table S3.6 Particulate m	atter in ambient	air - monitoring requi	rements		
Monitoring Point Ref. /Description	Parameter	Limit	Reference Period	Monitoring Frequency	Monitoring Standard or Method
20m downwind of asbestos disposal cell	Asbestos Fibres	Where total fibre concentration exceeds 0.01 fibres/ ml in any	2 hours	Twice per year or every 5000 tonnes asbestos deposited, whichever is greater.	<ul> <li>While asbestos is being deposited.</li> <li>Pumped sampling</li> <li>1m above ground level</li> </ul>
50m upwind of asbestos disposal cell	Asbestos Fibres	<ul> <li>sample, that</li> <li>sample must be</li> <li>submitted for</li> <li>electron</li> <li>microscopy to</li> <li>confirm the</li> <li>concentration of</li> <li>asbestos fibres</li> <li>present</li> </ul>	2 hours	During all downwind monitoring	<ul> <li>Flow rate = 4 litres/ minute</li> <li>Minimum sample volume = 480 litres</li> </ul>
Site boundary downwind of asbestos disposal cell	Asbestos Fibres		2 hours	Minimum twice per year.	<ul> <li>Filter pore size = 1.2µm</li> <li>Asbestos fibre limit of detection = 0.001 fibres/ ml</li> </ul>

Parameter	Limit	Reference Period	Monitoring Frequency	Monitoring Standard or Method
Deposited dust	200 mg/m²/day	Weekly average	Monthly	As per the requirements of the Dust and Particulates Management Plan as details in Table S1.2 or updated plan as approved in writing with the Environment Agency.
Suspended particulate (PM10)	Not to exceed 50 µg/m <sup>3</sup> more than 35 times per year	24 hour average	Monthly	
	Deposited dust Suspended particulate	Deposited dust     200 mg/m²/day       Suspended particulate     Not to exceed 50 µg/m³ more than	Deposited dust     200 mg/m²/day     Weekly average       Suspended particulate     Not to exceed 50 µg/m³ more than     24 hour average	Deposited dust     200 mg/m²/day     Weekly average     Monthly       Suspended particulate     Not to exceed 50 µg/m³ more than     24 hour average     Monthly

Monitoring point Ref. /description	Parameter	Monitoring frequency	Monitoring Standard or method
Permanently capped zone	Methane concentration	Every 12 months	As per LFTGN 07 (v2 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency.
Temporarily capped zone	Methane concentration	Every 12 months	As per LFTGN 07 (v2 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency.
Whole site area containing non-hazardous biodegradable waste only	Total Methane emission	As agreed with the Environment Agency	As per LFTGN 07 (v2 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency.

Table S3.7 Landfill gas emissions from capped surfaces for cells that have accepted non-hazardous biodegradable waste – monitoring requirements						
Monitoring point Ref. /description	Parameter	Monitoring frequency	Monitoring Standard or method			
Uncapped areas	Methane concentration	Every 12 months	As agreed with the Environment Agency based on the wording of revised LFTGN 07 or landfill sector guidance or such other subsequent guidance as may be agreed in writing with the Environment Agency.			

Monitoring Point Ref. /Description	Parameter	Monitoring frequency	Monitoring standard or method	
Up gradient MEPP	Water level, Ammoniacal Nitrogen, Chloride, Electrical 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 (www.gov.uk)	
	Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Nickel, Potassium, Sodium, Total Alkalinity, Total Sulphates, Zinc	Annually	or such other subsequent guidance as may be agreed in writing with the Environment Agency	
	Hazardous substances plus Antimony, Barium, DOC, Fluoride, Molybdenum, Selenium	Annually for first six years of operation		
Down or cross gradient MEPP	Water level, Ammoniacal Nitrogen, Chloride, Electrical 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 (www.gov.uk)	
	Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Nickel, Potassium, Sodium, Total Alkalinity, Total Sulphates, Zinc	Annually	or such other subsequent guidance as may be agreed in writing we the Environment Agency	

Monitoring Point Ref.	Parameter	Monitoring frequency	Monitoring standard or method
/Description			
	Hazardous substances plus Antimony, Barium, DOC, Fluoride, Molybdenum, Selenium	Annually for first six years of operation then 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. /Description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
In waste gas monitoring boreholes or sealed leachate wells or sacrificial gas extraction system in cells for non- hazardous waste	Methane Carbon Dioxide Oxygen Carbon Monoxide Differential pressure Atmospheric pressure	Monthly until gas extraction commences	Calibrated handheld monitoring instrument	<ul> <li>For cells or phases which have no active gas extraction.</li> <li>Gas extraction system shall be installed and extraction commenced once monitoring shows onset of methane production in waste at a rate that can be sustainably extracted.</li> <li>Once gas extraction has commenced in a particular cell or phase, there is no longer a requirement to carry out this monitoring.</li> </ul>

Monitoring Point Ref. /Description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
	Hydrogen Sulphide	Quarterly	Calibrated handheld monitoring instrument or Tedlar Bag sample in accordance with LFTGN04 or other such subsequent guidance as may be agreed in writing with the Environment Agency or a method agreed with the Environment Agency.	For cells or phases which have no active gas extraction. Once gas extraction has commenced in a particular cell or phase, there is no longer a requirement to carry out this monitoring. Concentrations of hydrogen sulphide shall be assessed in accordance with the gas and odour management plans
per cell and / or leachate wells [for separate cells for stable non-reactive hazardous waste, asbestos or gypsum on landfills for non- hazardous waste]	Methane Carbon Dioxide Oxygen Carbon Monoxide Differential pressure Atmospheric pressure	Monthly		
	Hydrogen Sulphide Hydrogen	Quarterly	Calibrated handheld monitoring instrument or Tedlar Bag sample in accordance with LFTGN04 or other such subsequent guidance as may be agreed in writing with the Environment Agency or a method agreed with the Environment Agency.	Concentrations of hydrogen sulphide shall be assessed in accordance with the gas and odour management plans

Monitoring Point Ref. /Description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
One in waste borehole or one leachate well per cell [for separate cells for stable non- reactive hazardous waste, asbestos or gypsum on landfills for non-hazardous waste]	Trace gas	Annually	Trace gas analysis in accordance with LFTGN04 or a trace gas characterisation method agreed with the Environment Agency or such other subsequent guidance as may be agreed in writing with the Environment Agency	The concentration of trace gas components shall be assessed against the assumptions made in the Landfill gas risk assessment and dispersion modelling.
Gas collection system at well control valve, manifolds (if applicable) and strategic points on gas system	Methane Carbon Dioxide Oxygen Carbon Monoxide Atmospheric pressure Gas flow rate or suction % Balance Gas (calculated as the difference between the sum of measured gases and 100%)	Monthly or at such other frequency as may be agreed in writing with the Environment Agency.	Calibrated handheld monitoring instrument	Where the oxygen concentration exceeds 5% or the % balance gas is greater than 20% an assessment of air ingress into the system shall be undertaken. Where the concentration of carbon monoxide exceeds 100ppm then further investigation shall be undertaken. Record the ambient air temperature and whether the ground is: waterlogged frozen snow covered
Gas collection system at well control valve	Hydrogen Sulphide	Six monthly	Calibrated handheld monitoring instrument or Tedlar Bag sample in accordance with LFTGN04 or other such subsequent guidance as may be agreed in writing with the Environment Agency or a method agreed with the Environment Agency.	Concentrations of hydrogen sulphide shall be assessed in accordance with the gas and odour management plans

Monitoring Point Ref. /Description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Output to flare or LFG Utilisation Compound	Trace gas	Annually	Trace gas analysis in accordance with LFTGN04 or such other subsequent guidance as may be agreed in writing with the Environment Agency [or a trace gas characterisation method agreed with the Environment Agency].	The concentration of trace gas components shall be assessed against the assumptions made in the Landfill gas risk assessment and dispersion modelling.
Output to flare or LFG Utilisation Compound	Methane Carbon Dioxide Oxygen Gas flow rate Suction % Balance Gas (calculated as the difference between the sum of measured gases and 100%)	Weekly		Where the oxygen concentration exceeds 5% or the % balance gas is greater than 20% an assessment of air ingress into the system shall be undertaken.
High Temp Flare	Temperature	As per LFTGN05 (V2 March 2011) or such other subsequent guidance as may be agreed in writing with the Environment Agency.	Monitoring method shall be as per monitoring-stack-emissions- techniques-and-standards-for- periodic-monitoring or such other subsequent guidance as may be agreed in writing with the Environment Agency.	

Monitoring point reference or description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Operational Cells or	Phases		•	1
(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, Cadmium, Calcium, Chloride, Chromium, COD, Copper, Electrical Conductivity, Iron, Lead, Magnesium, Manganese, Nickel, pH, Potassium, Sodium, Total Alkalinity, Total Sulphates, Zinc		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 plus Antimony, Barium, DOC, Fluoride, Molybdenum, Selenium	Annually	Landfill Leachate, Groundwater and Surface Water' (February 2003), <u>risk</u> <u>assessments for your environmental</u> permit (www.gov.uk), or such other	
MEPP	Depth to base (mAOD)	Annually	subsequent guidance as may be agreed in writing with the Environment Agency	
Non Operational Cel	lls or Phases			
(Any cell or phases	that have a final engineered cap agreed in acc	ordance with co	ndition 2.6	
MEPP	Ammoniacal Nitrogen, Arsenic, BOD, Cadmium, Calcium, Chloride, Chromium, COD, Copper, Electrical Conductivity, Iron, Lead, Magnesium, Manganese, Nickel, pH, Potassium, Sodium, Total Alkalinity, Total 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	None
MEPP	Hazardous substances [plus Antimony, Barium, DOC, Fluoride, Molybdenum, Selenium]	Once every four years	Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and 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	

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), <u>risk assessments for your environmenta</u> <u>permit</u> ( <u>www.gov.uk</u> ) or such other subsequent guidance as may be agreed in writing with the Environment Agency.

# Schedule 4 – Reporting

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

Table S4.1 Reporting of monitoring data		
Parameter	Reporting period	Period ends
Leachate level As specified by schedule 3, table S3.1	Every 3 months	31 March, 30 June, 30 September, 31 December
Point source emission to air As specified by schedule 3, table S3.2	Every 12 months	31 December
Point source emission to water (other than sewer) As specified by schedule 3, table S3.3	Every 3 months	31 March, 30 June, 30 September, 31 December
Emission to groundwater As specified by schedule 3, table S3.4	Every 3 months	31 March, 30 June, 30 September, 31 December
Landfill gas in external monitoring boreholes As specified by schedule 3, table S3.5	Every 3 months	31 March, 30 June, 30 September, 31 December
Particulate matter in ambient air. As required by schedule 3, table S3.6	Every 6 months	30 June, 31 December
Emission of landfill gas from capped surfaces As specified by schedule 3, table S3.7	Every 12 months	31 December
Other groundwater monitoring As specified by schedule 3, table S3.8	Every 3 months	31 March, 30 June, 30 September, 31 December
Other Landfill gas monitoring As specified by schedule 3, table S3.9	Every 3 months	31 March, 30 June, 30 September, 31 December
Trace gas monitoring	Every 12 months	31 December
Other leachate monitoring As specified by schedule 3, table S3.10	Every 12 months	31 December
Other surface water monitoring As specified by schedule 3, table S3.11	Every 12 months	31 December
Meteorological data Landfill Directive, annex III, section 2	Every 12 months	31 December

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

Table S4.2 Annual production/treatment	
Leachate:	Cubic metres/year
Disposed of off site;	
Disposed of to any onsite effluent treatment plant;	
Accepted from offsite for treatment at any onsite effluent treatment plant.	
Landfill gas:	Normalised cubic metres/year
combustion in flares;	
combustion in gas engines;	
Other methods of gas utilisation.	
Average methane content entering the landfill gas utilisation or treatment compound (based on the annual average of Table	% methane v/v
S3.10 monitoring) Mothere generation rate (50% ite from a representative model)	m <sup>3</sup> /hr
Methane generation rate (50%ile from a representative model)	

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	08/10/2014	
Air	Form Air 1 or other reporting format to be agreed in writing with the Environment Agency	08/10/2014	
Controlled water	Form Water 1 or other reporting format to be agreed in writing with the Environment Agency	08/10/2014	
Groundwater	Form Groundwater 1 or other reporting format to be agreed in writing with the Environment Agency	08/10/2014	
Landfill gas	Form LFG 1 or other reporting format to be agreed in writing with the Environment Agency	08/10/2014	
Particulate matter	Form Particulate 1 or other reporting format to be agreed in writing with the Environment Agency	08/10/2014	
Waste Return	E-waste Return Form	-	
Landfill topographical surveys and interpretation	Reporting format to be agreed in writing with the Environment Agency	-	

## Schedule 5 – Notification

This page outlines the information that the operator must provide.

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

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

#### Part A

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

(a) Notification requirements for any 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 the breach of a limit			
To be notified within 24 hours of detection unless otherwise specified below			
Emission point reference/ source			
Parameter(s)			
Limit			
Measured value and uncertainty			
Date and time of monitoring			

(b) Notification requirements for the breach of a limit		
To be notified within 24 hours of detection unless otherwise specified below		
Measures taken, or intended to be taken, to stop the emission		

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

(c) Notification requirements for the breach of permit conditions not related to limits		
To be notified within 24 hours of detection		
Condition breached		
Date, time and duration of breach		
Details of the permit breach i.e. what happened including impacts observed.		
Measures taken, or intended to be taken, to restore permit compliance.		

(d) Notification requirements in the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment			
To be notified within 24 hours of detection			
Description of where the effect on the environment was detected			
Substances(s) detected			
Concentrations of substances detected			
Date of monitoring/sampling			

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

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	

	The dates of any unauthorised emissions from facility in the preceding 24 months.	om the	
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Name*	
Post	
Signature	
Date	

\* authorised to sign on behalf of the operator

## Schedule 6 – Interpretation

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

"annually" means once every year.

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

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

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

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

"cell layout drawing" means:

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

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

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

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

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

"emissions to land" includes emissions to groundwater.

"EP Regulations" means The Environmental Permitting (England and Wales) Regulations 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 or background concentration limit.

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

"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

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).

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

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

'waste code' - 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,S2.2, S2.3, or S2.4 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;

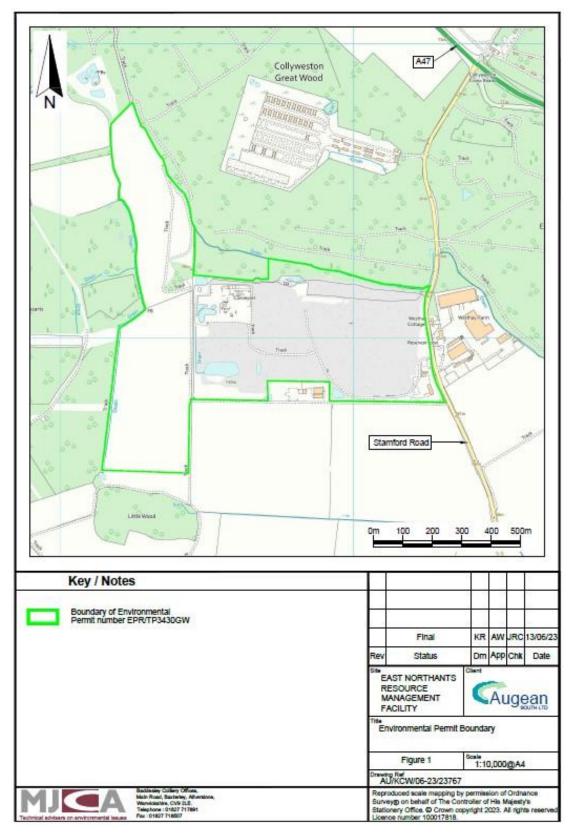
'transition metals' means any of the following metals: any compound of scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum and tantalum, as well as these materials in metallic form, as far as these are classified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