

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

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

Variation application number

EPR/TP3430GW/V005

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 2010 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

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

The effect of the variation is to:

- extend waste disposal operations into the western extension area (Phases 6 to 11),
- amend the leachate level to 5m across the existing phases and the new phases,
- amend the capping design for Phases 6 to 11, and
- amend the design of the basal area and side slopes for Phases 6 to 11.

The schedules specify the changes made to the permit.

The status log of a permit 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 (Billing Ref: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 (Billing Ref: DP3839TV) | 16/03/2010 | Variation issued. |
| Variation Determined EPR/TP3430GW/V003 (Billing Ref: YP3231KP) | 30/03/2010 | Variation issued. |
| Environment Agency Landfill Sector Review 2013 Permit reviewed Variation determined | 13/10/2014 | Environment Agency variation. Updated and consolidated permit issued. |

| Status log of the permit | | |
|--|-----------------------|---|
| Description | Date | Comments |
| EPR/TP3430GW/V004 (Billing Ref: WP3538VU) | | |
| Variation Application EPR/TP3430GW/V005 | Duly made 20/01/15 | 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 | 22/04/15 | Updated monitoring, restoration plan and clarification of Landsim modelling. |
| Further information received | 22/07/15 | Clarification when leachate head will reduce to 1m. |
| Further information received | 06/08/15 | Amended modelling with different management periods. |
| Variation Determined EPR/TP3430GW/V005 (Billing Ref: GP3731VL) | 05/10/15 | Varied and consolidated permit issued. |

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2010

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

Permit number

EPR/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 05/10/15.

| Name | Date |
|----------------|------------|
| Claire Roberts | 05/10/2015 |

Authorised on behalf of the Environment Agency

Schedule 1

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

Conditions 1.2.3, 1.2.4 and 1.2.5 – added to require that the financial provision is put in place prior to the deposit of waste in the new phases.

Condition 2.6.6 – amended to add reference to the drawing showing the pre-settlement contours.

Condition 2.10.1 – added to include pre-operational measures with respect to restoration.

Condition 3.5.1 – amended by deleting point (e) as this monitoring no longer applies and changing point (f) to point (e) to keep sequential numbering.

Schedule 1, table S1.2, as referenced by condition 2.3.1 – amended to include updated operating techniques and operating techniques for the western extension area.

Schedule 1, table S1.3, as referenced by condition 2.4.1 – amended to show requirements have been complied with.

Schedule 1, table S1.4, as referenced by condition 2.6.7 - amended to change specified quantity for restoration to “As agreed in accordance with pre-operational measure 1 in table S1.5” rather than compliance with improvement condition.

Schedule 1, table S1.5, as referenced by condition 2.10.1 – added to include a pre-operational measure.

Schedule 2, table S2.3, as referenced by condition 2.6.2 – wording amended to change reference to pre-operational measure 1 in table S1.5.

Schedule 3, table S3.1, as referenced by conditions 2.7.1 and 3.5.1 (a) – amended to add additional leachate level monitoring points and amended leachate limit.

Schedule 3, table S3.3, as referenced by conditions 3.1.2 and 3.5.1 (b) – amended to refer to revised plan and add a monitoring parameter.

Schedule 3, table S3.4, as referenced by condition 3.5.1 (c) – amended to add additional compliance points and amended compliance parameters and limits.

Schedule 3, table S3.5, as referenced by condition 3.5.1 (d) – amended to update borehole numbers.

Schedule 3, table S3.6, as referenced by condition 3.5.1 (e) – amended to update monitoring location references.

Schedule 3, table S3.8, as referenced by condition 3.5.1 (c) – amended to add additional parameters and amend monitoring frequency for some parameters.

Schedule 3, table S3.10, as referenced by condition 3.5.1 (a) – amended to add parameters.

Schedule 3, table S3.11, as referenced by condition 3.5.1 (e) (in previous variation) – deleted as monitoring covered by table S3.3.

Schedule 4, table S4.1, as referenced by condition 4.2.3 (a) – amended to remove row relating to “Other surface water monitoring” as this no longer applies.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2010

Permit number

EPR/TP3430GW

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/TP3430GW/V005 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 |
|----------------|------------|
| Claire Roberts | 05/10/2015 |

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 16th December 2009 shall be maintained by the operator throughout the subsistence of this permit and the operator shall produce evidence of such provision whenever required by the Environment Agency.
- 1.2.2 The operator shall ensure that the charges it makes for the disposal of waste in the landfill cover all of the following:
- (a) the costs of setting up and operating the landfill;
 - (b) the costs of the financial provision required by condition 1.2.1; and
 - (c) the estimated costs for the closure and aftercare of the landfill.
- 1.2.3 No deposit of waste authorised by this permit shall be commenced in phases 6, 7, 8, 9, 10 and 11 unless the operator has entered into an Agreement with the Environment Agency to secure financial provision for meeting the obligations under this permit and has provided the provision.
- 1.2.4 The operator shall give prior written notice to the Environment Agency of its intention to commence operations in phases 6, 7, 8, 9, 10 and 11.
- 1.2.5 The Financial Provision provided under condition 1.2.3 above shall thereafter be maintained by the operator throughout the subsistence of the permit and the operator shall produce evidence of such provision whenever required by the Environment Agency.

1.3 Energy efficiency

1.3.1 The operator shall:

- (a) take appropriate measures to ensure that energy is used efficiently in the activities;
- (b) Review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
- (c) Implement any appropriate measures identified by a review.

1.4 Efficient use of raw materials

1.4.1 The operator shall:

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

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

1.5.1 The operator shall:

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

2 Operations

2.1 Permitted activities

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

2.2 The site

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

2.3 Operating techniques

- 2.3.1 (a) The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- (b) If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan 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 as soon as practicable following the construction of the relevant landfill infrastructure.
- 2.5.8 Where pollution controls are immediately necessary to prevent an incident or accident, then conditions 2.5.5 and 2.5.6 do not apply and the relevant landfill infrastructure may be constructed, provided that the construction proposals are submitted to the Environment Agency as soon as practicable.
- 2.5.9 For the purposes of conditions 2.5.1, 2.5.2, 2.5.4 and 2.5.5, the Environment Agency shall be deemed to be satisfied where it has not, within the period of four weeks from the date of receipt of the relevant construction proposals or CQA Validation Report, either:
- (a) confirmed whether or not it is satisfied; or
 - (b) informed the operator that it requires further information.
- 2.5.10 Where the Environment Agency has required further information under condition 2.5.9(b), the Environment Agency shall be deemed to be satisfied where it has not, within the period of four weeks from the date of receipt of the further information, either:
- (a) confirmed whether or not it is satisfied; or
 - (b) informed the operator that it requires further information.

2.6 Waste acceptance

- 2.6.1 Wastes shall only be accepted for disposal if:
- (a) they are listed in schedule 2, table S2.1, and
 - (b) they are 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 have not been diluted or mixed solely to meet the relevant waste acceptance criteria, and
 - (i) they are wastes which have been treated, except for where treatment would not reduce its quantity or the hazards which it poses to human health or the environment.
 - (j) 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.
- 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 visually inspect:
- (a) without unloading it, waste that is not in an enclosed container or enclosed vehicle on arrival at the landfill; and
 - (b) waste at the point of deposit;
- and shall satisfy itself that it conforms to the basic characterisation documentation submitted by the holder.
- 2.6.4 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 ESID 4 'Site layout and waste deposition'.
- 2.6.7 The quantity of waste that is deposited in the landfill in any year shall not exceed the limits in schedule 1 table S1.4.
- 2.6.8 The operator shall maintain and implement a system which ensures that a record is made of the quantity, characteristics, date of delivery and, where practicable, origin of any waste that is received for disposal or recovery and of the identity of the producer, or in the case of municipal waste and multiple collection vehicles, of the collector of such waste. Any information regarded by the operator as commercially confidential shall be clearly identified in the record.
- 2.6.9 The operator shall maintain and implement a system to record the disposal location of any hazardous waste.

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:
- (b) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a revised landfill gas management plan;
 - (b) implement the revised landfill gas management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

2.10 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 Compliance with an emission limit in table S3.2 shall include incorporation of the uncertainty allowance stated in Environment Agency guidance LFTGN 05 and LFTGN 08.
- 3.1.4 The operator shall prevent the input of any hazardous substances from the activities into groundwater.
- 3.1.5 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 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; and
- (e) 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:

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

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

3.6 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 pre-settlement contours and the most recent topographical survey;
 - (h) a plan(s) ('the monitoring and extraction point plan - MEPP') showing the locations of leachate and landfill gas extraction and all monitoring points; and
 - (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 (a) In the event that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately;
- (i) inform the Environment Agency,
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
 - (iii) take the measures necessary to prevent further possible incidents or accidents;
- (b) in the event of a breach of any permit condition the operator must immediately—
- (i) inform the Environment Agency, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
- (c) in the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

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

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

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

In any other case:

- (e) the death of any of the named operators (where the operator consists of more than one named individual);
- (f) any change in the operator's name(s) or address(es); and
- (g) 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 Associated 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. |
| A4 | N/A | - | Flaring of landfill gas for disposal in an appliance. | Landfill gas arising from the landfill. |

| Table S1.2 Operating techniques | | |
|---|--|----------------------|
| 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 |

| Table S1.2 Operating techniques | | |
|---|---|----------------------|
| Description | Parts | Date Received |
| 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 11/03/15) | 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 3 Information on the Restoration Plan | 22/04/2015 |
| Response to request for information (email dated 11/06/15) | Email response date 22/07/15 Response to question 1d) Date for reduction in leachate limit | 22/07/2015 |

| Table S1.3 Improvement programme requirements | | |
|--|---|-------------|
| Reference | Requirement | Date |
| 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. | completed |
| 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. | completed |

| Table S1.4 Annual waste input limits | |
|---|--|
| Category | Limit Tonnes/ Year |
| Hazardous waste | 249,999 |
| Inert Waste for cover | 249,999 |
| Waste for restoration | As agreed in accordance with Pre-operational measure 1 in Table S1.5 |
| Total | 249,999 |

| Table S1.5 Pre-operational measures for future development | | |
|---|---|---|
| Reference | Operation | Pre-operational Measures |
| 1 | Restoration, but no later than 31/10/2016 | 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. |

Schedule 2 – List of permitted wastes

| Table S2.1 Permitted waste types for disposal at a landfill for hazardous waste | |
|--|---|
| 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 of 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* | dye stuffs 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 |
| 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 |

| Table S2.1 Permitted waste types for disposal at a landfill for hazardous waste | |
|--|---|
| Waste code | Description |
| 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 |
| 06 09 | wastes from the MFSU 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 |

| Table S2.1 Permitted waste types for disposal at a landfill for hazardous waste | |
|--|--|
| Waste code | Description |
| 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 |
| 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 |

| Table S2.1 Permitted waste types for disposal at a landfill for hazardous waste | |
|--|--|
| Waste code | Description |
| 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 waterproofing products) |
| 08 04 09* | waste adhesives and sealants containing organic solvents or other hazardous substances |
| 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 substances |
| 10 04 | wastes from lead thermal metallurgy |
| 10 04 01* | slags from primary and secondary production |

| Table S2.1 Permitted waste types for disposal at a landfill for hazardous waste | |
|--|--|
| Waste code | Description |
| 10 04 02* | dross and skimmings from primary and secondary production |
| 10 04 03* | calcium arsenate |
| 10 04 04* | flue-gas dust |
| 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 |
| 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 |

| Table S2.1 Permitted waste types for disposal at a landfill for hazardous waste | |
|--|--|
| Waste code | Description |
| 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, phosphatising, 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 |
| 11 05 03* | solid wastes from gas treatment |
| 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 |

| Table S2.1 Permitted waste types for disposal at a landfill for hazardous waste | |
|--|---|
| Waste code | Description |
| 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 04* | end-of-life vehicles |
| 16 01 08* | components containing mercury |
| 16 01 09* | components containing PCBs |
| 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 |
| 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 |

| Table S2.1 Permitted waste types for disposal at a landfill for hazardous waste | |
|--|--|
| Waste code | Description |
| 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 |
| 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 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 |

| Table S2.1 Permitted waste types for disposal at a landfill for hazardous waste | |
|--|--|
| Waste code | Description |
| 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 |
| 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 23* | Discarded equipment containing chloroflourocarbons |
| 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 for 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 |
| 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 |
| 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 |
| 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 COMERCIAL, INDUSTRIAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS |
| 20 01 | Separately collected fractions (except 15 01) |
| 20 01 02 | Glass |
| 20 02 02 | Soil and stones |

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

| Table S2.4 Specified Granular Wastes with elevated WAC limits | | |
|--|--|---------------------|
| List of Waste classification | Description | Component |
| 19 01 07* | Solid waste from gas treatment | Chloride, Lead, TDS |
| 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 l/kg Leaching limit (mg/kg dry substance) |
|--|--|
| Chloride | <75,000 |
| Lead | <150 |
| Total Dissolved Solids (TDS) ¹ | <300,000 |
| ¹ The value for TDS can be used alternatively to values for Chloride. | |

Schedule 3 – Emissions and monitoring

| Table S3.1 Leachate level limits and monitoring requirements | | | |
|---|--|----------------------|--|
| Monitoring point reference/Description | Limit | Monitoring frequency | Monitoring standard and method |
| Operational Cells or Phases (Any cells or phases that do not have a final engineered cap agreed in accordance with the landfill engineering condition, 2.5) | | | |
| Leachate compliance and monitoring points 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, KCLW9A2, KCLW9A3, KCLW10A2, KCLW10A3, KCLW11A2, KCLW11A3 As shown on drawing reference Figure 1, MEPP | 5m above cell base 1m above cell base from 31/12/26 | Monthly | As specified in Environment Agency Guidance TGN02 (February 2003) or such other subsequent guidance as may be agreed in writing with the Environment Agency. Or as otherwise agreed with the Agency as part of a leachate monitoring plan. |
| 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) | | | |
| Leachate compliance and monitoring points , KCLW3A1, KCLW3A2, KCLW3A3, KCLW3B1, KCLW3B2, KCLW3B3 As shown on drawing reference Figure 1, MEPP | 5m above cell base 1m above cell base from 31/12/26 | Quarterly | As specified in Environment Agency Guidance TGN02 (February 2003) or such other subsequent guidance as may be agreed in writing with the Environment Agency. Or as otherwise agreed with the Agency as part of a leachate monitoring plan. |

| Table S3.2 Point source emissions to air – emission limits and monitoring requirements | | | | | | |
|---|--------------------|---------------------|-------------------------------|-------------------------|-----------------------------|---|
| Emission point Ref. & Location | Parameter | Source | Limit (including unit) | Reference Period | Monitoring Frequency | Monitoring Standard or Method |
| High Temp Flare | Oxides of Nitrogen | Landfill Gas Flares | 150 mg/m ³ | Hourly mean | Annual | As per M2 or such other subsequent guidance as may be agreed in writing with the Environment Agency. Monitoring is unnecessary where the flare is active for <10% of the year. |
| | CO | | 50 mg/m ³ | | | |
| | Total VOCs | | 10 mg/m ³ | | | |

| Table S3.3 Point source emissions to water (other than sewer) – emission limits and monitoring requirements | | | | | | |
|--|-------------------------|---------------|-------------------------------|-------------------------|-----------------------------|--|
| Emission point Ref. & Location | Parameter | Source | Limit (including unit) | Reference Period | Monitoring Frequency | Monitoring Standard or Method |
| SWSEOFALL As shown on drawing reference Figure 1, MEPP | Suspended Solids | Surface water | 40 mg/l | Spot Sample | Monthly | As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), Horizontal Guidance Note H1 – Environmental Risk Assessment for permits, Annex J, version 2, (April 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency. |
| | Ammoniacal Nitrogen | | <1mg/l | | | |
| | Chloride | | 250 mg/l | | | |
| | pH | | Between pH 6 and pH 9 | | | |
| | Oil and Grease | | No visible | | | |
| | Electrical Conductivity | | No limit set | | | |

| Monitoring point reference | Parameter | Limit (including unit) | Reference Period | Monitoring frequency | Monitoring standard or method |
|---|---------------------|-------------------------------|-------------------------|-----------------------------|--|
| All downstream groundwater boreholes (K04, K05, K06A, K07, K08, K11, K12, K13A, K14A, K15A, K16 and K21) | Ammoniacal Nitrogen | 0.39 mg/l | Spot Sample | Quarterly | As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), Horizontal Guidance Note H1 – Environmental Risk Assessment for permits, Annex J, version 2, (April 2010) or such other subsequent guidance as may be agreed in writing with the Environment Agency. |
| | Cadmium | 0.0007 mg/l | | | |
| | Chloride | 250 mg/l | | | |
| | Dichlorprop | 0.00005 mg/l | | | |
| | Manganese | 0.46 mg/l | | | |
| | Naphthalene | 0.00001 mg/l | | | |
| | Toluene | 0.001 mg/l | | | |
| | Trichloroethene | 0.001 mg/l | | | |
| | Zinc | 0.11 mg/l | | | |

| Monitoring point Ref. /description | Parameter | Limit (including units) | Monitoring frequency | Monitoring standard or method |
|---|-----------------------|--------------------------------|-----------------------------|---|
| K03A, K10 As shown on drawing reference Figure 1, MEPP | Methane | 1%v/v | Monthly | As per LFTGN03 (Sept 2004) or such other subsequent guidance as may be agreed in writing with the Environment Agency. Record whether the ground is: waterlogged frozen |
| | Oxygen | no limit | | |
| | Atmospheric pressure | no limit | | |
| | Differential Pressure | no limit | | |

| Monitoring point Ref. /description | Parameter | Limit (including units) | Monitoring frequency | Monitoring standard or method |
|--|------------------|--------------------------------|-----------------------------|--------------------------------------|
| K03A As shown on drawing reference Figure 1, MEPP | Carbon dioxide | 8%v/v | | snow covered |
| K10 As shown on drawing reference Figure 1, MEPP | | 8.5%v/v | | |

| Monitoring Point Ref. /Description | Parameter | Limit | Reference Period | Monitoring Frequency | Monitoring Standard or Method |
|--|------------------------------|--|-----------------------------|-----------------------------|--------------------------------------|
| KCASB01, KCASB02 and KCASB04 As shown on drawing reference Figure 1, MEPP | Asbestos fibres | 0.01 fibres/ml | Annual average 4 hour total | Monthly | None |
| KCDD01, KCDD02, KCDD03, KCDD04, KCDD05, KCDD06 As shown on drawing reference Figure 1, MEPP | Deposited dust | 200 mg/m ³ | Weekly average | Monthly | None |
| KCPM05, KCPM08 and KCPM09 As shown on drawing reference Figure 1, MEPP | Suspended particulate (PM10) | Not to exceed 50 µg/m ³ more than 35 times per year | 24 hour average | Monthly | None |

| Table S3.7 Landfill gas emissions from capped surfaces – monitoring requirements | | | |
|---|------------------------|---------------------------------------|--|
| 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 | 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 |
| 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 |

| Table S3.8 Groundwater – other monitoring requirements | | | |
|---|---|--|--|
| Monitoring Point Ref. /Description | Parameter | Monitoring frequency | Monitoring standard or method |
| Up gradient MEPP | Water level, Electrical Conductivity, Chloride, Ammoniacal Nitrogen, pH, Cadmium, Dichlorprop, Naphthalene, Toluene, Trichloroethene, Zinc, Manganese | Quarterly | As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), Horizontal Guidance Note H1 – Environmental Risk Assessment for permits, Annex J, version 2, (April 2010), or such other subsequent guidance as may be agreed in writing with the Environment Agency |
| | Total Alkalinity, Magnesium, Potassium, Total Sulphates, Calcium, Sodium, Chromium, Copper, Iron, Lead, Nickel | Annually | |
| | Hazardous substances plus Barium, Molybdenum, Antimony, Selenium, Fluoride, DOC | Annually for first six years of operation | |
| Down or cross gradient MEPP | Water level, Electrical Conductivity, Chloride, Ammoniacal Nitrogen, pH, Cadmium, Dichlorprop, Naphthalene, Toluene, Trichloroethene, Zinc, Manganese | Quarterly | As specified in Environment Agency Guidance TGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), Horizontal Guidance Note H1 – Environmental Risk Assessment for permits, Annex J, version 2, (April 2010), or such other subsequent guidance as may be agreed in writing with the Environment Agency After the initial 6 year monitoring period for hazardous substances, if the results of quarterly or annual monitoring suggest an increase in contamination, the operator shall also undertake a full leachate hazardous substances screen. |
| | Total Alkalinity, Magnesium, Potassium, Total Sulphates, Calcium, Sodium, Chromium, Copper, Iron, Lead, Nickel | Annually | |
| | Hazardous substances detected in leachate plus Barium, Molybdenum, Antimony, Selenium, Fluoride, DOC | Annually for first six years of operation then every two years | |

| Table S3.8 Groundwater – other monitoring requirements | | | |
|---|---------------------------------|-----------------------------|--------------------------------------|
| Monitoring Point Ref. /Description | Parameter | Monitoring frequency | Monitoring standard or method |
| MEPP | Base of monitoring point (mAoD) | Annually | |

| Table S3.9 Landfill gas – other monitoring requirements | | | | |
|---|---|-----------------------------|---|---|
| Monitoring Point Ref. /Description | Parameter | Monitoring frequency | Monitoring standard or method | Other specifications |
| Leachate and landfill gas monitoring locations As shown on drawing reference Figure 1, MEPP | Methane Carbon Dioxide Oxygen Carbon Monoxide Differential pressure Atmospheric pressure | Monthly | As per LFTGN03 (Sept 2004) or such other subsequent guidance as may be agreed in writing with the Environment Agency | None |
| One leachate and landfill gas monitoring location per phase As shown on drawing reference Figure 1, MEPP | 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 |

Table S3.9 Landfill gas – other monitoring requirements

| Monitoring Point Ref. /Description | Parameter | Monitoring frequency | Monitoring standard or method | Other specifications |
|--|------------------|-----------------------------|--|---|
| <p>One leachate and landfill gas monitoring location per phase</p> <p>As shown on drawing reference Figure 1, MEPP</p> | <p>Trace gas</p> | <p>Annually</p> | <p>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</p> | <p>The concentration of trace gas components shall be assessed against the assumptions made in the Landfill gas risk assessment and dispersion modelling.</p> |

Table S3.9 Landfill gas – other monitoring requirements

| Monitoring Point Ref. /Description | Parameter | Monitoring frequency | Monitoring standard or method | Other specifications |
|---|---|---|---|---|
| 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 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 |

Table S3.9 Landfill gas – other monitoring requirements

| Monitoring Point Ref. /Description | Parameter | Monitoring frequency | Monitoring standard or method | Other specifications |
|---------------------------------------|---|----------------------|--|--|
| Input to flare | 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. |
| Input to flare | Methane Carbon Dioxide Oxygen Gas flow rate Suction % Balance Gas (calculated as the difference between the sum of measured gases and 100%) | Weekly | None specified | Where the oxygen concentration exceeds 5% or the % balance gas is greater than 20% an assessment of air ingress into the system shall be undertaken. |

Table S3.9 Landfill gas – other monitoring requirements

| Monitoring Point Ref. /Description | Parameter | Monitoring frequency | Monitoring standard or method | Other specifications |
|---|------------------|--|---|-----------------------------|
| 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 | As per M2 or such other subsequent guidance as may be agreed in writing with the Environment Agency | |

| Table S3.10 Leachate – other monitoring requirements | | | | |
|--|---|-----------------------------|---|-----------------------------|
| Monitoring point reference or description | Parameter | Monitoring frequency | Monitoring standard or method | Other specifications |
| Operational Cells or Phases (Any cell or phases that do not have a final engineered cap agreed in accordance with condition 2.5) | | | | |
| MEPP (1) | pH, Electrical Conductivity, Total Alkalinity, Ammoniacal Nitrogen, Chloride, COD, BOD, Cadmium, Chromium, Copper, Lead, Nickel, Iron, Arsenic, Magnesium, Potassium, Total Sulphates, Calcium, Sodium, Zinc, Manganese, Dichlorprop, Naphthalene, Toluene, Trichloroethene | Quarterly | As specified in Environment Agency Guidance TGN02 (February 2003) and Horizontal Guidance Note H1 – Environmental Risk Assessment for permits, Annex J, version 2, April 2010) with one sampling point per cell / phase or such other subsequent guidance as may be agreed in writing with the Environment Agency | None |
| MEPP(1) | Hazardous substances, plus Barium, Molybdenum, Antimony, Selenium, Fluoride, DOC | Annually | | None |
| MEPP | Depth to base (mAoD) | Annually | | None |
| Non Operational Cells or Phases (Any cell or phases that have a final engineered cap agreed in accordance with condition 2.5) | | | | |
| MEPP(1) | pH, Electrical Conductivity, Total Alkalinity, Ammoniacal Nitrogen, Chloride, COD, BOD, Cadmium, Chromium, Copper, Lead, Nickel, Iron, Arsenic, Magnesium, Potassium, Total Sulphates, Calcium, Sodium, Zinc, Manganese, Dichlorprop, Naphthalene, Toluene, Trichloroethene | Annually | As specified in Environment Agency Guidance TGN02 (February 2003) and Horizontal Guidance Note H1 – Environmental Risk Assessment for permits, Annex J, version 2, (April | None |

Table S3.10 Leachate – other monitoring requirements

| Monitoring point reference or description | Parameter | Monitoring frequency | Monitoring standard or method | Other specifications |
|---|--|-----------------------|--|----------------------|
| MEPP(1) | Hazardous substances, plus Barium, Molybdenum, Antimony, Selenium, Fluoride, DOC | Once every four years | 2010) with one sampling point per cell / phase or such other subsequent guidance as may be agreed in writing with the Environment Agency | None |
| MEPP | Depth to base (mAoD) | Annually | | None |

(1) At one monitoring point per phase.

Schedule 4 - Reporting

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

| Table S4.1 Reporting requirements | | |
|---|---------------------------|--|
| Parameter | Reporting period * | Period ends |
| Leachate and/ or groundwater level As specified by schedule 3, table S3.1 | Every 3 months | 31 March, 30 June, 30 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 |
| <ul style="list-style-type: none"> • Trace gas monitoring | Every 12 months | 31 December |
| Other leachate monitoring As specified by schedule 3, table S3.10 | Every 12 months | 31 December |
| <ul style="list-style-type: none"> • Hazardous substances | 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: Disposed of off site; Disposed of to any onsite effluent treatment plant; Recirculated into the waste mass. Accepted from offsite for treatment at any onsite effluent treatment plant. | Cubic metres/year |
| Landfill gas: 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 S3.9 monitoring) Methane generation rate (50%ile from a representative model) | Normalised cubic metres/year % methane v/v m ³ /hr |

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

| Table S4.4 Reporting Forms | | |
|---|--|---------------------|
| Media/parameter | Reporting Format | Date of Form |
| Leachate | Form leachate 1 or other reporting format to be agreed in writing with the Environment Agency | 08/10/2014 |
| Air | Form Air 1 or other reporting format to be agreed in writing with the Environment Agency | 08/10/2014 |
| Water and Land | 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 | Waste Return Form RATS2E | |
| 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 malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution

| To be notified within 24 hours of detection | |
|--|--|
| Date and Time of the event | |
| Reference or description of the location of the event | |
| Description of where any release into the environment took place | |
| Substances(s) potentially released | |
| Best estimate of the quantity or rate of release of substances | |
| Measures taken, or intended to be taken, to stop any emission | |
| Description of the failure or accident. | |

| (b) Notification requirements for the breach of a limit | |
|---|--|
| To be notified within 24 hours of detection unless otherwise specified below | |
| Emission point reference/ source | |
| Parameter(s) | |
| Limit | |
| Measured value and uncertainty | |
| Date and time of monitoring | |
| Measures taken, or intended to be taken, to stop the emission | |

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

| (c) Notification requirements for the detection of any significant adverse environmental effect | |
|--|--|
| To be notified within 24 hours of detection | |
| Description of where the effect on the environment was detected | |
| Substances(s) detected | |
| Concentrations of substances detected | |
| Date of monitoring/sampling | |

Part B to be supplied as soon as practicable

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

| | |
|------------------|--|
| 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 2010, SI 2010 No.675. Words and expressions used in this permit which are also used in those Regulations have the same meanings as in those Regulations.

“*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 property*” has the meaning in Annex III of the Waste Framework Directive.

“*Hazardous substances*” as defined by the Environmental Permitting (England and Wales) Regulations 2010, SI 2010 No.675, schedule 22 and listed in our Hydrogeological risk assessment guidance, annex J to our H1 risk assessment guidance.

“*Hazardous waste*” has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005 (as amended).

“*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.

“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.

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

Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

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

