

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Ingrebourne Valley Limited

Tilbury Ash Disposal Site
Tilbury Power Station
Fort Road
Tilbury
Essex
RM18 8UJ

Variation application number

EPR/GP3733DZ/V004

Permit number

EPR/GP3733DZ

Tilbury Ash Disposal Site

Permit number EPR/GP3733DZ

Introductory note

This introductory note does not form a part of the notice

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

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

This variation amends the permit operating techniques to incorporate a revised Waste Acceptance Procedure, which covers the increase in the limit values of the following determinants:

- Antimony
- Barium
- Chloride
- Fluoride
- Molybdenum
- Phenol
- Selenium.

Additionally, this variation adds Phenol to the groundwater monitoring requirements.

The rest of the site will continue to operate as follows:

Site

Tilbury Ash Disposal Site is a non-hazardous landfill site located to the east of Tilbury in Essex. The site lies in a Flood Zone 3 benefiting from flood defences. The River Thames runs parallel to the southern site boundary, approximately 90m away. Access by road is obtained via the Tilbury Power Station to the west or by a jetty on the River Thames.

Regulated History

The disposal of ash to Tilbury Ash Disposal Site commenced shortly after the construction of the power station in 1968 and continued until its closure in 2013. The site was historically covered by four separate Waste Management Licences (WML), as follows:

- Licence EA/WML/71185 for Area A3 (Jan 1978);
- Licence EA/WML/71186 for Area C2 (Nov 1991);
- Licence 193/91 for Areas A1, A2 and C1 (June 2001); and;
- Licence 38/78 for Area B (June 2001)

Tilbury Ash Disposal Site was subsequently granted a PPC Permit (GP3739BQ) in 2007, which incorporated all areas previously authorised through the waste management licensing regime. Tilbury Ash Disposal Site has to date been developed as a land raise for the deposition of Pulverised Fuel Ash (PFA) from the adjacent Tilbury B power station. The site comprises of seven areas; Area A1 – A3, B1 and C1 – C3, located to the north-east of the power station. The site is permitted to be restored to a maximum elevation of 9 metres AOD. At present the site has been filled to an elevation of between 1.5 metres AOD and 6 metres AOD across Areas A1, A2, A3, B, C1 and C2. No filling has taken place across Area C3 to date and A1 has been completed as permitted.

The site has been permitted to complete the remaining fill levels using imported inert wastes instead of the previously permitted pulverised fuel ash. The site will be returned to agricultural use using the topsoils

previously stripped from the landfill areas and materials authorised by the restoration plan.

A derogation from the inert landfill waste acceptance criteria required by the Landfill Directive has been approved for this site in respect of London Clay arising from various infrastructure and tunnelling projects. The approved derogation allows the clay to be accepted at the site with naturally elevated concentrations of total dissolved solids. The concentrations can be up to 3 times the leaching limit for an inert landfill set out in Council Decision Annex 2003/33/EC (European Council of 19 December 2002).

Landfill gas boreholes are to be retrospectively drilled for gas monitoring in aftercare post closure in line with the Landfill Directive requirements for inert waste due to their absence in the historic permit.

Due to the non-biodegradable nature of both the previously accepted single sourced PFA and the new waste streams, there will be no leachate generated.

An aftercare plan of three years has been agreed given the limited biodegradable content of the deposited PFA and proposed inert waste codes.

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/GP3739BQ/A001	Received 09/11/04	Application for non-hazardous landfill accepting solely Pulverised Fuel Ash (PFA) produced by Tilbury B Power Station.
Permit determined EPR/GP3739BQ	05/04/07	Original permit issued to RWE Npower plc
Variation Application EPR/XP3236UR/V002	Duly made 25/07/07	
Variation Determined XP3236UR	01/06/09	
Application EPR/GP3739BQ/V003	Duly made 21/07/09	Increase in final restoration levels from 6m AOD to 9m AOD. Increase of extra 1 million tonnes of PFA.
Variation issued EPR/GP3739BQ	30/03/10	
Application EPR/GP3739BQ/V004 (variation)	13/11/14	Name changed to RWE Generation UK Plc.
Variation issued EPR/GP3739BQ	02/12/14	Varied permit issued to RWE Generation UK Plc.
Application EPR/GP3733DZ/T001 (full transfer of permit EPR/GP3739BQ)	Duly made 31/03/17	Application to transfer the permit in full from RWE Generation UK Plc to Ingrebourne Valley Limited
Transfer determined EPR/GP3733DZ	19/05/17	Full transfer of permit complete.
Application EPR/GP3733DZ/V002 (variation and consolidation)	Duly made 24/05/17	Application to vary waste types from PFA only to inert waste and update the permit to modern conditions.
Schedule 5 information request sent 10/07/17	Received 15/08/17	Revised Hydrogeological Risk Assessment (HRA) and Stability Risk Assessment (SRA) and landfill gas risk assessment.
Additional information request sent 02/08/2017	06/09/17	Dust, vegetation and sediment management plans.
2 nd Schedule 5 information request sent 07/09/17	Received 19/09/17	Revised SRA.

Status log of the permit		
Description	Date	Comments
Variation determined EPR/GP3733DZ	13/10/17	Varied permit issued.
Application EPR/GP3733DZ/V003 (variation and consolidation)	Duly made 15/10/18	Application to vary and update the permit to modern conditions.
Response to Schedule 5 Notice dated 26/11/18	10/12/18	Confirmation of the installation name, quantities of waste, site conceptual model, groundwater levels and flows, analysis of the sulphate levels from borehole BHC4D, further details regarding the drilling additives, and quantitative risk assessment.
Additional information received in response to request for further information dated 30/11/18	18/12/18	Details concerning the restoration plan.
Additional information received in response to request for further information dated 18/12/18	29/01/19	Revised Dust and Emissions Management plan.
Response to Schedule 5 notice dated 17/01/19	13/02/19	Response regarding site conceptual model (relating to the hydrogeology and stability), proposals for borehole BHC4D, and restoration plan.
	11/03/19	Response regarding site conceptual model and updated version of "Tideway Central, Soil Conditioning Agent and Grease – Spoil Deposition Risk Assessment (Ferrovia Agroman Laing O'Rourke) (Version 4, dated March 2019)".
	12/03/19	Response regarding site conceptual model.
Variation determined EPR/GP3733DZ	18/04/19	Varied permit issued (variation and consolidation).
Application EPR/GP3733DZ/V004 (variation and consolidation)	Duly made 30/08/19	Application to vary and update the permit to modern conditions.
Response to Schedule 5 Notice dated 03/10/2019	17/10/19	Response regarding the derivation of Waste Acceptance Criteria.
Response to Schedule 5 Notice dated 26/11/2019	11/12/19	Response justifying the risk factors and Waste Acceptance Criteria for Antimony, Barium, Chloride, Fluoride, Molybdenum, Phenol, and Selenium.
Additional information in response to a request for clarification dated 13/12/19	23/12/19	Response regarding the clarifying Waste Acceptance Criteria for Antimony, Barium, Chloride, Fluoride, Molybdenum, Phenol, and Selenium.
Additional information in response to a request response to Schedule 5 Notice dated 26/11/2019	21/01/20	Revised Waste Acceptance Procedure
Variation determined EPR/GP3733DZ (Billing Ref: MP3201PN)	27/01/20	Varied permit issued (variation and consolidation).

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

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

Permit number

EPR/GP3733DZ

Issued to

Ingrebourne Valley Limited (“the operator”)

whose registered office is

**Cecil House
Foster Street
Harlow Common
Harlow
Essex
CM17 9HY**

company registration number 02848746

to operate a regulated facility at

**Tilbury Ash Disposal Site
Tilbury Power Station
Fort Road
Tilbury
Essex
RM18 8UJ**

to the extent set out in the schedules.

The notice shall take effect from 27/01/2020

Name	Date
Claire Roberts	27/01/2020

Authorised on behalf of the Environment Agency

Schedule 1

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

Condition and/or Table	Description of change
Table S1.2 as referenced by Condition 2.3.1	Table S1.2 – Operation techniques, is amended to incorporate the following: <ul style="list-style-type: none">• Technical Standards as detailed in Part C3 Question 3a of the application form• Waste Acceptance Procedure, dated October 2019, received 21/01/2020
Table S3.3 as referenced by Condition 3.5.1	Table S3.3 – Groundwater – other monitoring, is amended to require the groundwater boreholes to be monitored for phenol.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/GP3733DZ

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/GP3733DZ/V004 authorising,

Ingrebourne Valley Limited (“the operator”),

whose registered office is

**Cecil House
Foster Street
Harlow Common
Harlow
Essex
CM17 9HY**

company registration number 02848746

to operate an installation at

**Tilbury Ash Disposal Site
Tilbury Power Station
Fort Road
Tilbury
Essex
RM18 8UJ**

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

Name	Date
Claire Roberts	27/01/2020

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

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

1.2 Finance

- 1.2.1 The financial provision for meeting the obligations under this permit set out in the agreement made between the operator and the Environment Agency dated 19th May 2017 as varied on 5th October 2017 shall be maintained by the operator throughout the subsistence of this permit and the operator shall produce evidence of such provision whenever required by the Environment Agency.
- 1.2.2 The operator shall ensure that the charges it makes for the disposal of waste in the landfill cover all of the following:
- (a) the costs of setting up and operating the landfill;
 - (b) the costs of the financial provision required by condition 1.2.1; and
 - (c) the estimated costs for the closure and aftercare of the landfill.

1.3 Energy efficiency

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

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

2.4 Improvement programme

2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency

2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

2.5 Landfill Engineering

- 2.5.1 No construction of any new cell of the landfill shall commence until the operator has submitted construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.
- 2.5.2 Where the operator proposes to construct any new cell other than the first cell, but proposes no change from the design of the most recently approved cell which could have any impact on the performance of any element of the design, no construction of the new cell shall commence until the operator has submitted a cell layout drawing and the Environment Agency has confirmed that it is satisfied with the cell layout drawing.
- 2.5.3 The construction of a new cell shall take place only in accordance with the approved construction proposals unless:
- (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or
 - (b) a change has otherwise been agreed in writing by the Environment Agency.
- 2.5.4 No disposal of waste shall take place in a new cell until the operator has submitted a CQA Validation Report and the Environment Agency has confirmed that it is satisfied with the CQA Validation Report.
- 2.5.5 No construction of landfill infrastructure shall commence until the operator has submitted relevant construction proposals or a written request to use previous construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.
- 2.5.6 The construction of the landfill infrastructure shall take place only in accordance with the approved construction proposals unless:
- (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or
 - (b) a change has otherwise been agreed in writing by the Environment Agency.
- 2.5.7 The operator shall submit a CQA Validation Report 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 S2.1A, S2.1B and

- (b) they are non-hazardous waste and
 - (c) they are not liquid waste (including waste waters but excluding sludge and carrier waters), and
 - (d) all the relevant waste acceptance procedures have been completed, and
 - (e) they fulfil the relevant waste acceptance criteria, and
 - (f) they have not been diluted or mixed solely to meet the relevant waste acceptance criteria, and
 - (g) they are wastes which have been treated, except for: inert wastes for which treatment is not technically feasible; or it is waste other than inert waste and treatment would not reduce its quantity or the hazards which it poses to human health or the environment.
- 2.6.2 Wastes shall only be accepted for restoration where:
- (a) they are listed in schedule 2, table S2.3 and
 - (b) they are accepted in accordance with a restoration plan approved in writing by the Environment Agency.
- 2.6.3 The operator shall:
- (a) visually inspect without unloading it, waste that is not in an enclosed container or enclosed vehicle on arrival at the landfill and waste at the point of deposit; and
 - (b) be satisfied that the waste conforms to the requirements of condition 2.6.1.
- 2.6.4 Where the operator has taken samples to establish that the waste is in conformity with the documentation submitted by the holder then the samples taken shall be retained for at least one month and results of any analysis for at least two years.
- 2.6.5 The operator on accepting each delivery of waste shall provide a receipt to the person delivering it.
- (a) The total quantity of waste that shall be deposited or recovered in the landfill shall be limited by the pre-settlement levels shown on drawing EP5 Restoration Plan, dated May 2017.
- 2.6.6 The quantity of waste that is deposited or recovered in the landfill in any year shall not exceed the limits in schedule 1 table S1.5.
- 2.6.7 The operator shall maintain and implement a system which ensures that a record is made of the quantity, characteristics, date of delivery and, where practicable, origin of any waste that is received for disposal or recovery and of the identity of the producer, or in the case of municipal waste and multiple collection vehicles, of the collector of such waste. Any information regarded by the operator as commercially confidential shall be clearly identified in the record.

2.7 Closure and aftercare

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

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 The operator shall prevent the input of any hazardous substances from the activities into groundwater.
- 3.1.3 The operator shall submit to the Environment Agency a review of the Hydrogeological Risk Assessment:
- (a) between nine and six months prior to the fourth anniversary of the granting of the permit, and

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

3.2 Emissions of substances not controlled by emission limits

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

3.3 Odour

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

3.4 Noise and vibration

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

3.5 Monitoring

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring and any other actions specified in the following tables in schedule 3 to this permit:
- (a) Groundwater specified in tables S3.1 and S3.3;
 - (b) Landfill gas specified in table S3.2; and
 - (c) Surface water specified in table S3.4;
- 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.5.3 A topographical survey of the site referenced to ordnance datum shall be carried out and shall be used to produce a plan of a scale adequate to show the surveyed features of the site:
- (a) annually, and
 - (b) prior to the disposal of waste in any new cell or new development area of the landfill, and
 - (c) following closure of the landfill or part of the landfill'
- unless otherwise agreed in writing with 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) waste types and quantities;
 - (iii) 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 volume of waste received (reported in cubic metres) since previous report i.e. the additional volume of the landfill void that is occupied by waste;
 - (f) a calculation of the remaining capacity (reported in cubic metres) derived from records of the most recent topographic survey or volume of waste received since previous report.
 - (g) a plan(s) ('the monitoring and extraction point plan – MEPP') showing the locations of leachate and landfill gas extraction and all monitoring points.
- 4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
 - (b) using the forms specified in schedule 4 table S4.4 or other reporting format as agreed in writing with the Environment Agency; and
 - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.4 Within one month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.
- 4.2.5 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.3 Notifications

- 4.3.1 (a) In the event that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
- (i) inform the Environment Agency,
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
 - (iii) take the measures necessary to prevent further possible incidents or accidents;
- (b) in the event of a breach of any permit condition the operator must immediately—
- (i) inform the Environment Agency, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;

- (c) in the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:
- Where the operator is a registered company:
- (a) any change in the operator's trading name, registered name or registered office address; and
 - (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.
- Where the operator is a corporate body other than a registered company:
- (a) any change in the operator's name or address; and
 - (b) any steps taken with a view to the dissolution of the operator.
- In any other case:
- (a) the death of any of the named operators (where the operator consists of more than one named individual);
 - (b) any change in the operator's name(s) or address(es); and
 - (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.
- 4.3.4 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 or D1 Deposit into or on to land; and R10 – Land treatment resulting in benefit to agriculture or ecology	Section 5.2 Part A(1) (a), The disposal of waste in a landfill.	Landfill for non-hazardous waste and landfill restoration.	Receipt, handling, storage and disposal of wastes, consisting of the types and quantities specified in conditions 2.6, as an integral part of landfilling.
A2	R5 - the recycling or reclamation of inorganic material	Section 5.4, Part A(1)(b)(iii), Treatment of non-hazardous slags and ashes	Crushing, screening or other physical grading of PFA waste with a capacity >75 tonnes/day prior to export from the site.	Applies to the screening and removal of PFA waste previously deposited at the landfill prior to export for re-use. Waste types are listed in table S2.2

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	Sections 1, 2, 3, and 5 of the Application in response to Appendix 7 – specific question for the landfill sector Part C3 of the application form. <ul style="list-style-type: none">• ESSD Report• HRA• Stability Risk Assessment	24/05/17
Response to Schedule 5 Notice dated 10/07/17	Response to question 3, 4 and 5 detailing the stability risk assessment. Response to question 6 detailing in-waste gas monitoring programme.	15/08/17
Response to Schedule 5 Notice dated 07/09/17	Response to question 1, part; a), b) and c) detailing waste stability risk assessment.	19/09/17
Response submitted in response to IC3	Plan showing the location of the landfill gas monitoring wells.	23/04/18
Application	Response to Question 3a Technical Standards of Part C3 of the application and Section 4 of the Non-technical Summary.	Duly Made 15/10/18

Table S1.2 Operating techniques		
Description	Parts	Date Received
Response to Schedule 5 (1) dated 26/11/18	Response to Question 2 – Quantities and Types of Waste	10/12/18
Response to Request for Further Information dated 30/11/18	Restoration Plan	18/12/19
Response to Request for Further Information dated 18/12/18	Dust and Emissions Management Plan	29/01/19
Response to Schedule 5 (2) dated 17/01/19	Response to Questions 1a),1b), and 2 to 8.	13/02/19
Additional Information submitted in response to Schedule5 (2) dated 17/01/	Agreement for the deposit of waste containing tunnelling additives below the cap	13/02/19
Additional Information submitted in response to Schedule5 (2) dated 17/01/19	“Tideway Central, Soil Conditioning Agent and Grease – Spoil Deposition Risk Assessment (Ferroviai Agroman Laing O'Rourke) (Version 4, dated March 2019)	11/03/19
Additional Information submitted in response to Schedule5 (2) dated 17/01/19	Hydrogeological Risk Proposed Variation Development - HRA2c (dated February 2019)	12/03/19
Application EPR/GP3733DZ/V004	Response to Question 3a Technical Standards of Part C3 of the application.	Duly Made 30/08/19
Additional Information submitted in response to Schedule 5 (2) dated 26/11/19	Revised Waste Acceptance Procedure	21/01/20

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC1	The operator shall submit to the Environment Agency in writing for approval a restoration plan for the site which includes waste quantities, waste types, and waste acceptance criteria for wastes for restoration (2.6.2).	Completed by the submission of Restoration Plan as part of variation V003.
IC2	The operator shall progressively install in-waste gas monitoring points at a minimum density of 2 points per hectare unless otherwise agreed with EA and commence routine in waste gas monitoring.	On completion of each cell.

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
	The landfill gas monitoring boreholes shall be constructed and recorded in accordance with a Construction Quality Assurance (CQA) Plan covering all elements of the landfill gas monitoring system. The proposal shall be in accordance with Environment Agency Guidance: LFTGN03 'Management of Landfill Gas'.	
IC3	The operator shall submit a gas monitoring layout plan containing unique borehole reference numbers to the Environment Agency for approval.	Completed.
IC4	<p>The operator shall submit a report to the Environment Agency in writing detailing the investigation and sampling of borehole BHC4D.</p> <p>The report shall include the following:</p> <ol style="list-style-type: none"> a. Written details of a programme of investigations to determine the cause of the non-compliance at BHC4D as per response to Schedule question 3 dated 13/02/19 unless otherwise agreed with Environment Agency. b. Based on the investigation undertaken in IC4a, a written, factual report and an interpretation report with conclusions and recommendations to either continue to use as a monitoring point or decommission the borehole. Once approved and from the date stipulated by the Environment Agency, the report outcomes shall be implemented in accordance with the agreed timescales, subject to such amendments or additions as notified by the Environment Agency. 	24/04/20
IC5	<p>The operator shall submit a report to the Environment Agency in writing detailing the following for borehole BHC8D:</p> <ol style="list-style-type: none"> a. Written details of the location, construction and sampling programme for installation of a groundwater compliance monitoring borehole outside the landfilled waste in the groundwater outflow region at the southern boundary of the landfill, and proposals for setting compliance limits. b. A Written factual report and an interpretation report of the findings of the programme completed in IC5a, with conclusions and recommendations for groundwater compliance limits. <p>Once approved and from the date stipulated by the Environment Agency, the report outcomes shall be implemented in accordance with the agreed timescales, subject to such amendments</p>	24/04/20

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
	or additions as notified by the Environment Agency. When IC5b approved, the approved compliance limits shall be added to the permit Schedule 3 Table S3.1.	

Table S1.5 Annual waste input limits	
Category	Limit Tonnes/ Year
Non-hazardous waste	1,500,000
Waste for restoration	1,500,000
Total waste annual tonnage	1,500,000

Schedule 2 – List of permitted wastes

Table S2.1A Permitted waste types for disposal at a landfill for inert waste	
Waste code	Description
01	Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals
01 04	wastes from physical and chemical processing of non-metalliferous minerals
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	waste sand and clays
01 05	Drilling muds and other drilling waste
01 05 04	freshwater drilling muds and wastes
17	Construction and demolition wastes (including excavated soil from contaminated sites)
17 01	concrete, bricks, tiles and ceramics
17 01 01	Concrete
17 01 02	Bricks
17 01 03	tiles and ceramics
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 04	soil and stones other than those mentioned in 17 05 03 (Excluding topsoil and peat, excluding soil and stones from contaminated sites)
17 05 04	soil and stones other than those mentioned in 17 05 03 with tunnelling additives ^[Note 1] (Excluding topsoil and peat, excluding soil and stones from contaminated sites)
17 05 06	dredging spoil other than those materials mentioned in 17 05 05
17 09	other construction and demolition wastes
17 09 04	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 09	minerals (for example sand, stones)
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions
20 02	garden and park wastes (including cemetery waste)
20 02 02	soil and stones (excluding topsoil and peat)
Note 1: Only additives detailed in report titled "Tideway Central, Soil Conditioning Agent and Grease – Spoil Deposition Risk Assessment (Ferrovial Agroman Laing O'Rourke) (dated March 2019)"	

Table S2.1B Waste types previously permitted for disposal	
Waste code	Description
10	WASTES FROM THERMAL PROCESSES
10 01	wastes from power stations and other combustion plants (except 19)
10 01 01	bottom ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04)
10 01 02	coal fly ash

Table S2.2 Permitted waste types for treatment (A2)	
Waste code	Description
10	Wastes from thermal processes
10 01	wastes from power stations and other combustion plants (except 19)
10 01 01	bottom ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04)
10 01 02	coal fly ash

Table S2.3 Permitted waste types for restoration	
Waste code	Description
17	Construction and demolition wastes (including excavated soil from contaminated sites)
17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 04	soil and stones other than those mentioned in 17 05 03
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions
20 02	garden and park wastes (including cemetery waste)
20 02 02	soil and stones.

Schedule 3 – Emissions and monitoring

Table S3.1 Groundwater – emission limits and monitoring requirements						
Monitoring reference	point	Parameter	Limit (including unit) mg/l	Reference Period	Monitoring frequency	Monitoring standard or method
BHC1D		Aluminium	0.052	Spot Sample	Quarterly	As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), risk assessments for your environmental permit (www.gov.uk) , or such other subsequent guidance as may be agreed in writing with the Environment Agency.
		Nickel	0.02			
		Molybdenum	0.012			
		Selenium	0.020			
		Sulphate	60			
		Arsenic	0.026			
		Chromium	0.027			
BHC2D		Aluminium	0.054	Spot Sample	Quarterly	As specified in Environment Agency Guidance LGTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), risk assessments for your environmental permit (www.gov.uk) , or such other subsequent guidance as may be agreed in writing with the Environment Agency.
		Nickel	0.02			
		Molybdenum	0.04			
		Selenium	0.040			
		Sulphate	100			
		Arsenic	0.029			
		Chromium	0.030			
BHC3D		Aluminium	0.10	Spot Sample	Quarterly	As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), risk assessments for your environmental permit (www.gov.uk) , or such other subsequent guidance as may be agreed in writing with the Environment Agency.
		Nickel	0.02			
		Molybdenum	0.07			
		Selenium	0.028			
		Sulphate	100			
		Arsenic	0.020			
		Chromium	0.027			

Table S3.1 Groundwater – emission limits and monitoring requirements						
Monitoring reference	point	Parameter	Limit (including unit) mg/l	Reference Period	Monitoring frequency	Monitoring standard or method
BHC4D		Aluminium Nickel Molybdenum Selenium Sulphate Arsenic Chromium	0.05 ^[Note1] 0.033 ^[Note1] 0.24 ^[Note1] 0.035 ^[Note1] 2000 ^[Note1] 0.02 ^[Note1] 0.037 ^[Note1]	Spot Sample	Quarterly	As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), risk assessments for your environmental permit (www.gov.uk) , or such other subsequent guidance as may be agreed in writing with the Environment Agency.
BHC5D		Aluminium Nickel Molybdenum Selenium Sulphate Arsenic Chromium	0.036 0.02 0.015 0.024 250 0.012 0.027	Spot Sample	Quarterly	As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), risk assessments for your environmental permit (www.gov.uk) , or such other subsequent guidance as may be agreed in writing with the Environment Agency.
BHC6D		Aluminium Nickel Molybdenum Selenium Sulphate Arsenic Chromium	0.057 0.01 0.0085 0.016 60 0.013 0.030	Spot Sample	Quarterly	As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), risk assessments for your environmental permit (www.gov.uk) , or such other subsequent guidance as may be agreed in writing with the Environment Agency.

Table S3.1 Groundwater – emission limits and monitoring requirements					
Monitoring point reference	Parameter	Limit (including unit) mg/l	Reference Period	Monitoring frequency	Monitoring standard or method
BHC7D	Aluminium Nickel Molybdenum Selenium Sulphate Arsenic Chromium	0.027 0.02 0.0074 0.021 250 0.017 0.030	Spot Sample	Quarterly	As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), risk assessments for your environmental permit (www.gov.uk) , or such other subsequent guidance as may be agreed in writing with the Environment Agency.
BHC8D	As per approved response to Improvement Condition IC5 unless otherwise agreed in writing with the Environment Agency.	As per approved response to Improvement Condition IC5 unless otherwise agreed in writing with the Environment Agency.	As per approved response to Improvement Condition IC5 unless otherwise agreed in writing with the Environment Agency.	As per approved response to Improvement Condition IC5 unless otherwise agreed in writing with the Environment Agency.	As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), risk assessments for your environmental permit (www.gov.uk) , or such other subsequent guidance as may be agreed in writing with the Environment Agency.
Note 1: Interim limits until the completion and written approval of improvement condition IC4 and IC5 from the Environment Agency.					

Table S3.2 Landfill gas in monitoring boreholes – limits and monitoring requirements				
Monitoring point Ref. /description	Parameter	Limit (including units)	Monitoring frequency	Monitoring standard or method
All landfill gas monitoring points - In line with IC3	Methane	1 %v/v	Quarterly	As specified in Environment Agency Guidance LFTGN03 'Guidance on the management of landfill gas' (September 2004) or such other subsequent guidance as may be agreed in writing with the Environment Agency. Record whether the ground is: waterlogged frozen snow covered
	Carbon Dioxide	1.5 %v/v		
	Oxygen	no limit		
	Atmospheric Pressure	no limit		
	Differential Pressure	no limit		
	Flow	no limit		

Table S3.3 Groundwater – other monitoring requirements			
Monitoring Point Ref./Description	Parameter	Monitoring frequency	Monitoring standard or method
BHC1S BHC2S BHC3S BHC4S BHC5S BHC6S BHC7S	Water level (mAOD), aluminium, antimony, arsenic, boron, chromium, molybdenum, mercury, nickel, selenium, sulphate, vanadium	Quarterly	As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), risk assessments for your environmental permit (www.gov.uk) , or such other subsequent guidance as may be agreed in writing with the Environment Agency.
BHC1D BHC2D BHC3D	Water level (mAOD), aluminium, antimony, arsenic, boron, chromium, molybdenum, mercury, nickel, selenium, sulphate, vanadium	Quarterly	
BHC4D BHC5D	pH, electrical conductivity, total alkalinity, chloride, fluoride, bromide, calcium,	Annually	

Table S3.3 Groundwater – other monitoring requirements			
Monitoring Point Ref./Description	Parameter	Monitoring frequency	Monitoring standard or method
BHC6D BHC7D BHC8D ^[Note 2]	magnesium, barium, sodium, potassium, cadmium, copper, lead, zinc, manganese, iron, cobalt, tin, thallium, antimony, ammoniacal nitrogen, TON, TOC, phosphate and phenol Base of monitoring point (mAoD)		
Note 2 – As approved response to Improvement Condition IC4 and IC5 unless otherwise agreed in writing with the Environment Agency.			

Table S3.4 Surface water – other monitoring requirements				
Monitoring Point Ref. /Description	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
SWB	Aluminium Arsenic Boron Cadmium Calcium Chromium Magnesium Nickel Potassium	Quarterly	Spot sample	As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), risk assessments for your environmental permit (www.gov.uk) or such other subsequent guidance as may be agreed in writing with the Environment Agency.

Schedule 4 – Reporting

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

Table S4.1 Reporting of monitoring data		
Parameter	Reporting period	Period ends
Emission to groundwater As specified by schedule 3, table S3.1	Every 3 months	31 March, 30 June, 30 September, 31 December
Landfill gas in monitoring boreholes As specified by schedule 3, table S3.2	Every 3 months	31 March, 30 June, 30 September, 31 December
Other groundwater monitoring As specified by schedule 3, table S3.3	Every 3 months	31 March, 30 June, 30 September, 31 December
Other surface water monitoring As specified by schedule 3, table S3.4	Every 3 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	
Pulverised fuel ash: Treated (by crushing screening or other physical grading). Excavated and treated to meet a Quality Protocol and transferred from disposal site for reuse. Excavated and/or treated and transferred from disposal site for reuse (non Quality Protocol)	Tonnes/year

Table S4.3 Performance Parameters			
Parameter	Frequency of assessment	Annual total	Unit
Energy used	Annually		MWh of electricity or natural gas

Table S4.4 Reporting Forms		
Media/parameter	Reporting Format	Date of Form
Groundwater	Form Groundwater 1 or other reporting format to be agreed in writing with the Environment Agency	18/04/19
Landfill gas	Form LFG 1, or other reporting format to be agreed in writing with the Environment Agency	18/04/19
Waste Return	E-waste Return Form	--
Annual Production/Treatment	Reporting format to be agreed in writing with the Environment Agency	--

Table S4.4 Reporting Forms		
Media/parameter	Reporting Format	Date of Form
Landfill topographical surveys and interpretation	Reporting format to be agreed in writing with the Environment Agency	--

Schedule 5 – Notification

This page outlines the information that the operator must provide.

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

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

Part A

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

(a) Notification requirements for any 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	

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

(a) “Cell layout drawing” means: 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 2016, SI 2016 No.1154, schedule 22 and listed in our risk assessment guidance.

“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.

“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.

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

“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

“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.

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

“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.

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

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

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

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

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

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

“Waste code” means the six digit code referable to a type of waste in accordance with the List of Wastes and in relation to hazardous waste, includes the asterisk.

Where the following terms appear in the waste code list in Tables S2.1A, S2.1B, S2.2 or S2.3 they have the meaning given below:

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

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

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

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

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

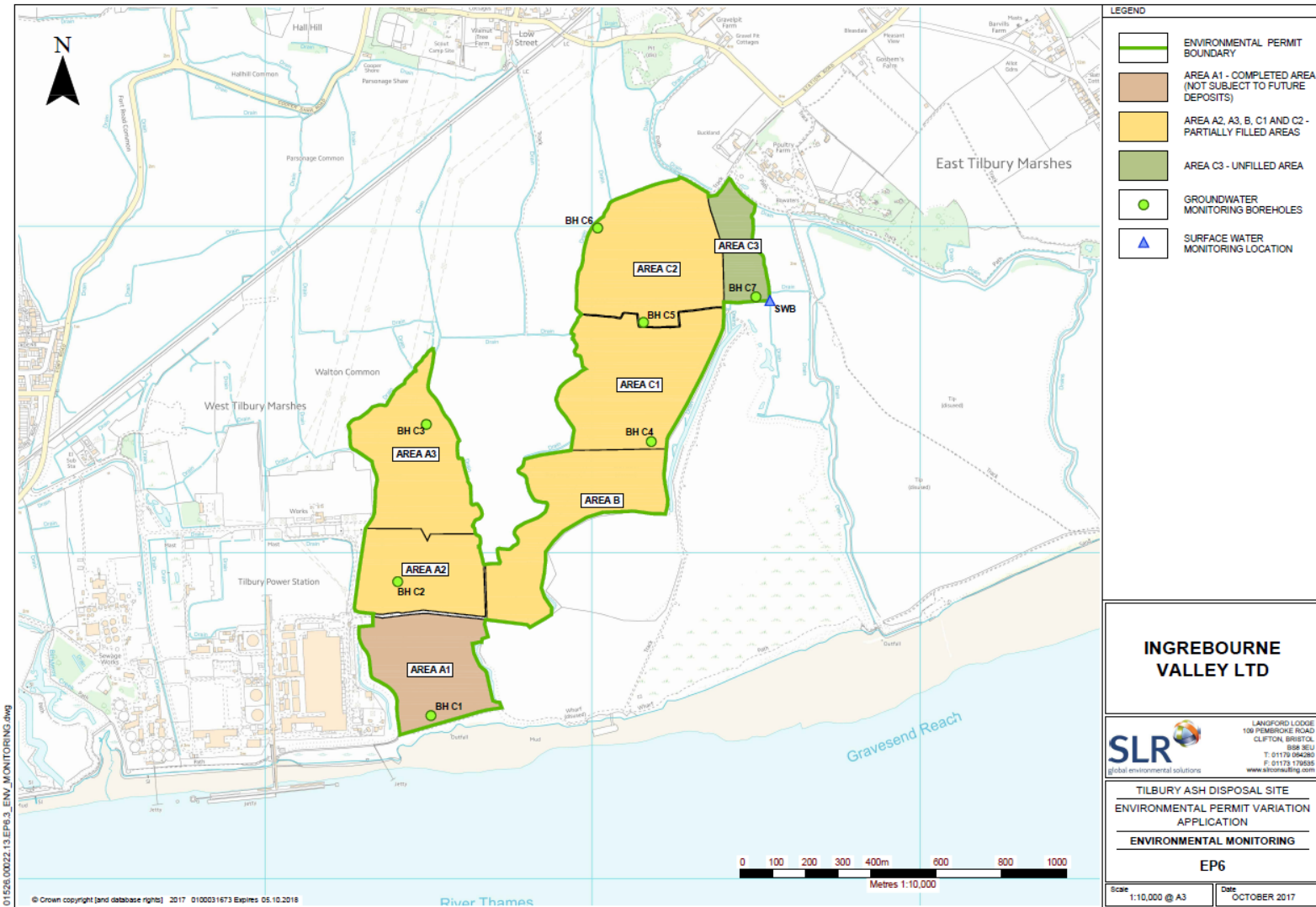
'transition metals' means any of the following metals: any compound of scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum and tantalum, as well as these materials in metallic form, as far as these are classified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

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

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

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

Schedule 7 – Site plan



END OF PERMIT

Permit number
EPR/GP3733DZ