

Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Brett Aggregates Limited

George Green Landfill
Uxbridge Road
Buckinghamshire
SL2 5NH

Permit number

EPR/DB3607XU

George Green Landfill

Permit number EPR/DB3607XU

Introductory note

This introductory note does not form a part of the permit

The main features of the permit are as follows.

The proposed site of George Green Inert Landfill is located at land to the south east of the A412 Uxbridge Road, immediately adjacent to the border between Buckinghamshire and the borough of Slough in Berkshire (NGR SU 99414, 80864).

There are no European Sites (candidate or Special Areas of Conservation, proposed or Special Protection Areas or Ramsar sites) or Sites of Special Scientific Interest (SSSI) within 2km.

George Green is situated within Zone 3 of a source protection zone. Part of the site, along the western boundary is also liable to flooding and is located within Flood Zones 2 and 3.

The site has planning permission for the extraction of mineral, mineral processing including bagging, infilling with construction and demolition waste together with restoration to agriculture and nature conservation uses, issued by Buckinghamshire County Council under consent reference 13/00575/CC dated 12th March 2014.

This permit encompasses Standard Rules permit 2009 No.8 Management of inert wastes and unpolluted soil at mines and quarries for the storage, treatment and disposal of inert extractive wastes, including silt. Topsoil and subsoil / overburden removed from the land prior to extraction of the mineral will be placed back on the land as part of the approved restoration scheme without any further processing.

Following the working of the sand and gravels, it is proposed to import up to 150,000 tonnes per annum of inert waste for disposal within the landfill. Up to 20,000 tpa of silt arising from the processing of extracted minerals will be treated on site in lined settlement lagoons (Lagoons 2 and 3). Periodically, this treated silt will be dug out of the lagoons for disposal within the landfill. Total landfill inputs will therefore be up to 170,000 tonnes per annum, including disposal of the silt.

As the base of the site is sub water table, dewatering will be undertaken to maintain the water table at a depth where it would not inhibit site operations. If complete dewatering of the site is not feasible site derived material may be used below the water table to create a 'raft' on which to construct the Geological Barrier in dry conditions. The Geological Barrier will be constructed using suitable imported engineering materials or waste to achieve an equivalent of a minimum thickness of 1.0 metres at a permeability no greater than $1.0 \times 10^{-7} \text{m/s}$.

In addition to the landfilling activity the site will accept up to 30,000 tpa of windfall ballast (sand and gravel from construction sites) for processing through the aggregate processing plant. This operation is included as physico chemical treatment for the purpose of recovery. As windfall ballast is imported, this is recognised as an off-site operational use and the operator has in place an abstraction licence for the water required in the processing of this material (TH/039/0027/026 issued 20/11/2017).

Detailed noise and air quality (including dust) assessments were completed for an Environmental Statement in support of planning. A revised noise assessment was required and was assessed and agreed as part of permit determination. An updated Dust Management Plan was provided, which included dust monitoring and mitigation measures to protect both long term and short term air quality standards, and was assessed and agreed as part of permit determination. Other potential amenity issues such as mud on roads, litter, and odour are addressed through risk assessment and proposed site operational practices.

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

Status log of the permit		
Description	Date	Comments
Application EPR/DB3607XU/A001	Duly made 26/06/2017	Application for inert landfill and physico chemical treatment for recovery.
Additional information received	09/03/2018	Hydrogeological risk assessment Control levels and compliance limits Landfill gas monitoring Waste acceptance criteria Stability Risk Assessment Restoration Plan
Additional information received	06/06/2018	Hydrogeological risk assessment Control levels and compliance limits Waste acceptance criteria
Additional information received	13/06/2018	Dust Management Plan
Additional information received	13/07/2018	Noise assessment
Additional information received	27/11/2018	Dust Management Plan
Additional information	16/12/2018	Hydrogeological Risk Assessment
Permit determined EPR/DB3607XU	21/01/2019	Permit issued to Brett Aggregates Limited.

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/DB3607XU

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

Brett Aggregates Limited (“the operator”),

whose registered office is

150 Aldersgate Street

London

EC14 4AB

company registration number 00316788

to operate waste operations at

George Green Landfill

Uxbridge Road

Buckinghamshire

SL2 5NH

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

Under regulation 27(2) of the Regulations, Standard Rules 2009 No.8 are conditions of this permit.

Name	Date
Dominiqua Drakeford-Allen	21/01/2019

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 21/01/2019 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 Avoidance, recovery and disposal of wastes produced by the activities

- 1.3.1 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 Landfill Engineering

- 2.4.1 No construction of any new cell or development area shall commence until the operator has submitted construction proposals and the Environment Agency has confirmed that it is satisfied with the construction proposals.
- 2.4.2 The construction of a new cell or development area 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.
- 2.4.3 The operator shall submit a CQA Validation Report to the Environment Agency within 4 weeks following the construction of the new cell.
- 2.4.4 No disposal of waste shall take place in a new cell or development area until the operator has submitted a CQA Validation Report and the Environment Agency has confirmed that it is satisfied with the CQA Validation Report.
- 2.4.5 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.
- 2.4.6 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.
- 2.4.7 The operator shall submit a CQA Validation Report within 4 weeks of the completion of the landfill infrastructure.
- 2.4.8 Where pollution controls are immediately necessary to prevent an incident or accident, then conditions 2.4.1 and 2.4.5 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.

- 2.4.9 For the purposes of conditions 2.4.1, 2.4.4 and 2.4.5 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.
- 2.4.10 Where the Environment Agency has required further information under condition 2.4.9(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.

2.5 Waste acceptance

- 2.5.1 Wastes shall only be accepted for disposal if:
- (a) they are listed in schedule 2, table S2.1; and
 - (b) they are inert waste; and
 - (c) they are not liquid waste (including waste waters but excluding sludge); 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 wastes for which treatment is not technically feasible.
- 2.5.2 Waste 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.
- 2.5.3 Wastes shall only be accepted for physical treatment if
- (a) they are listed in schedule 2, table S2.2
- 2.5.4 The operator shall:
- (a) visually inspect without unloading it, waste that is not in an enclosed container or enclosed vehicle on arrival at the landfill and waste at the point of deposit; and
 - (b) be satisfied that the waste conforms to the requirements of condition 2.5.1.
- 2.5.5 Where the operator has taken samples to establish that the waste is in conformity with the documentation submitted by the holder then the samples taken shall be retained for at least one month and results of any analysis for at least two years.
- 2.5.6 The operator on accepting each delivery of waste shall provide a receipt to the person delivering it.
- 2.5.7 The total quantity of waste that shall be deposited in the landfill shall be limited by the pre-settlement levels shown on drawing Pre-settlement contours (top of waste) 012.
- 2.5.8 The quantity of waste that is deposited or recovered in the landfill in any year shall not exceed the limits in schedule 1, table S1.3.
- 2.5.9 The operator shall maintain and implement a system which ensures that a record is made of the quantity, characteristics, date of delivery and, where practicable, origin of any waste that is received for disposal or restoration 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 Closure and aftercare

2.6.1 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 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3, tables S3.1, S3.2 and S3.3.

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

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

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

3.2 Emissions of substances not controlled by emission limits

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

3.2.2 The operator shall:

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

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

3.3 Noise and vibration

3.3.1 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.

3.3.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to 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.

3.4 Monitoring

3.4.1 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 S3.4;
- (b) Landfill gas specified in table S3.2;
- (c) Particulate matter specified in table S3.3.

3.4.2 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.

3.4.3 A topographical survey of the site referenced to ordnance datum shall be carried out and shall be used to produce a plan of a scale adequate to show the surveyed features of the site:

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

4 Information

4.1 Records

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

- (a) be legible;
- (b) be made as soon as reasonably practicable;
- (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
- (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
 - (i) the results of groundwater monitoring;
 - (ii) landfill gas monitoring;
 - (iii) waste types and quantities.

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. 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 activity 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 topographical surveys required by condition 3.4.3 other than those submitted as part of a CQA validation report;
 - (c) 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;
 - (d) 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;
 - (e) a calculation of the remaining capacity (reported in cubic metres) derived from the pre-settlement contours and the most recent topographical survey; and
 - (f) a plan(s) ('the monitoring point plan – MPP') showing the locations of 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) for the reporting periods specified in schedule 4, table S4.1 and using the forms specified in schedule 4, table S4.2 or other reporting format as agreed in writing with the Environment Agency; and
 - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.4 Within one month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.
- 4.2.5 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.3 Notifications

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

(ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;

(c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.

4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

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

Where the operator is a registered company:

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

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

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

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	
Description of specified activity	Limits of activities
D01: Deposit into or on to land D15: Storage of waste pending disposal R10: Land treatment resulting in benefit to agriculture or ecological improvement	The deposit of inert waste into or onto land of types specified in Table S2.1 and quantities specified in Table S1.3. The site is to be engineered in accordance with approved construction proposals required by conditions 2.4. Recovery of waste for restoration including the tonnage specified within Table S1.3 and waste types specified within Table S2.3.
R03: Recycling/reclamation of organic substances R05: Recycling/reclamation of other inorganic materials R13: Storage of wastes pending the operations numbered R03 and R05 D09: Physical/physico-chemical treatment of waste prior to any other disposal operation D15: Storage of waste pending disposal	Receipt, handling, storage (prior to and after treatment) and physical treatment of inert wastes for the production of aggregate, in accordance with the WRAP Quality Protocol, to ensure that the product achieves end of waste criteria. Treatment shall be limited to wet screening and sorting prior to recovery as a product or disposal. Waste and non wastes for treatment shall be managed in separate stockpiles. Waste types specified within Table S2.2 and quantities specified in table S1.3. Storage of wastes listed in Table S2.2 shall not exceed 10,000 tonnes in total at any one time.

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application	Stability Risk Assessment, Ref: 427.01009.00133/SRA, Version 1 Further information provided in Schedule 5 Response Letter Questions 18-20, dated 09/03/2018	26/06/2017
Application	Restoration Plan, Ref: 427.01009.00133, Version 1	26/06/2017
Response to request for information dated 18/12/2017	Conceptual Site Model, Environmental Setting and Site Design (ESSD) Report v2 (including Appendices 001-012 provided 26/06/2017 and 09/03/2018)	09/03/2018
Response to request for information dated 18/12/2017	Waste Acceptance at Permitted Landfill, Recovery and Recycling Sites Operated by Brett	09/03/2018

Table S1.2 Operating techniques		
Description	Parts	Date Received
	Aggregates Ltd, Ref: QHEST 2, Procedure BA40	
Response to request for information dated 25/04/2018	George Green Noise Assessment, Ref: 402.01009.00216, Version 1	13/07/2018
Response to request for information dated 25/04/2018	Dust Management Plan, Ref: JAE 7935, Revision 4 The above Dust Management Plan forms part of the operating techniques of this permit unless another plan has been formally agreed with an officer of the Environment Agency.	27/11/2018
Response to request for information dated 20/09/2018	Hydrogeological Risk Assessment, Ref: 427-01009-00133/HRA, Version 2	16/12/2018

Table S1.3 Annual waste input limits	
Category	Limit
Inert waste for disposal	200,000 tonnes per annum
Inert waste for treatment via physical treatment	30,000 tonnes per annum
Waste for restoration	57,000 tonnes total

Schedule 2 – List of permitted waste

Table S2.1 Permitted waste types for disposal at a landfill for inert waste		
01	Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals	Limitations
01 01	wastes from mineral excavation	
01 01 02	wastes from mineral non-metalliferous excavation	
01 04	wastes from physical and chemical processing of non-metalliferous minerals	
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07	
01 04 09	waste sand and clays	
01 04 12	tailings and other wastes from washing and cleaning of minerals other than those mentioned in 01 04 07 and 01 04 11	Only silts from on-site settlement lagoons
10	Wastes from thermal processes	
10 11	wastes from manufacture of glass and glass products	
10 11 03	waste glass-based fibrous materials	Only without organic binders
10 12	wastes from manufacture of ceramic goods, bricks, tiles and construction products	
10 12 08	waste ceramics, bricks, tiles and construction products (after thermal processing)	
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	Selected construction and demolition waste (C & D waste): with low contents of other types of
17 01 02	bricks	
17 01 03	tiles and ceramics	

Table S2.1 Permitted waste types for disposal at a landfill for inert waste		
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06	materials (like metals, plastic, organics, wood, rubber, etc). The origin of the waste must be known. No C&D waste from buildings, polluted with inorganic or organic dangerous substances e.g. because of production processes in the construction, soil pollution, storage and usage of pesticides or other dangerous substances, etc, unless it is made clear that the demolished building was not significantly polluted. No C&D waste from buildings, treated, covered or painted with materials, containing dangerous substances in significant amounts.
17 02	wood, glass and plastic	
17 02 02	glass	
17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil	
17 05 04	soil and stones other than those mentioned in 17 05 03	Soil and stones other than those mentioned in 17 05 03.
17 09	other construction and demolition wastes	
17 09 04	Mixed construction & demolition wastes	Comprising a mixture of concrete, bricks, tiles, ceramics, glass, soils & stones eg from uncontaminated sites.
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	
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 01	separately collected fractions (except 15 01)	
20 01 02	glass	Separately collected glass only
20 02	garden and park wastes (including cemetery waste)	

Table S2.1 Permitted waste types for disposal at a landfill for inert waste		
20 02 02	soil and stones	Only from garden and parks waste; excluding top soil and peat

Table S2.2 Permitted waste types for physical treatment		
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	Inert mineral wastes from off-site sources subject to the proposed landfill WAC. Must not contain any contaminated soil or stone from contaminated sites.

Table S2.3 Permitted waste types for treatment prior to and use for restoration		
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	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 point reference	Parameter	Limit (including unit)	Reference Period	Monitoring frequency	Monitoring standard or method
GG05 GG06 DW1 Drawing ESID 007 Environmental Monitoring	Sulphate	228 mg/l	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	0.025 mg/l			
	Selenium	0.007 mg/l			
	Cadmium	0.0035 mg/l			
	Naphthalene	0.00168 mg/l			
	Arsenic	0.0042 mg/l			

Table S3.2 Landfill gas in monitoring boreholes – limits and monitoring requirements

Monitoring point Ref. /description, Drawing ESID 007 Environmental Monitoring March 2018	Parameter	Limit (including units)	Monitoring frequency	Monitoring standard or method
Perimeter monitoring boreholes GG01, GG02, GG03, GG04, GG05, GG06, GG07	Methane	1%	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
	Oxygen	No limit		
	Atmospheric Pressure	No limit		
	Differential Pressure	No limit		
	Carbon dioxide	No limit		
Internal gas monitoring points (2 per ha, as detail on Drawing ESID 007 Environmental Monitoring).	Methane	No limit	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	No limit		
	Oxygen	No limit		
	Atmospheric Pressure	No limit		
	Differential Pressure	No limit		

Table S3.3 Particulate matter in ambient air - monitoring requirements					
Monitoring Point Ref. /Description	Parameter	Limit	Reference Period	Monitoring Frequency	Monitoring Standard or Method
DM3, DM4	Suspended particulate matter with an aerodynamic diameter of less than 10	50 µg/m ⁻³ (not to be exceeded more than 35 times per year)	24 hour mean	Continuous	Direct-reading continuous nephelometer, specifically a Turnkey Osiris analyser, which has MCERTS approval as an indicative PM monitor.

Monitoring Point Ref. /Description	Parameter	Limit	Reference Period	Monitoring Frequency	Monitoring Standard or Method
	micrometres (PM10)				

Monitoring Point Ref./Description	Parameter	Monitoring frequency	Monitoring standard or method
Up gradient GG01, GG02	Water Level	Quarterly	As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u>risk assessments for your environmental permit (www.gov.uk)</u> , or such other subsequent guidance as may be agreed in writing with the Environment Agency.
	Electrical Conductivity, Chloride, Ammoniacal Nitrogen, pH, Total Alkalinity, Magnesium, Potassium, Calcium, Sodium, Chromium, Copper, Iron, Lead, Zinc, Manganese, TON, TOC, COD	Quarterly	
	Hazardous Substances	Annually for first six years of operation	
	Base of monitoring point (mAOD)	Annually	
Down gradient GG05, GG06	Water Level	Quarterly	As specified in Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), <u>risk assessments for your environmental permit (www.gov.uk)</u> , 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 hazardous substances screen.
	Electrical Conductivity, Chloride, Ammoniacal Nitrogen, pH, Total Alkalinity, Magnesium, Potassium, Calcium, Sodium, Chromium, Copper, Iron, Lead, Zinc, Manganese, TON, TOC, COD	Quarterly	

Table S3.4 Groundwater – other monitoring requirements			
Monitoring Point Ref./Description	Parameter	Monitoring frequency	Monitoring standard or method
	Hazardous substances	Annually for first six years of operation then every two years	
	Base of monitoring point (mAOD)	Annually	
DW1	Electrical Conductivity, Chloride, Ammoniacal Nitrogen, pH, Total Alkalinity, Magnesium, Potassium, Calcium, Sodium, Chromium, Copper, Iron, Lead, Zinc, Manganese, TON, TOC, COD	Quarterly	

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, tables S3.1 and S3.4	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
Particulate matter in ambient air. As required by schedule 3, table S3.3	Every 6 months	30 June, 31 December

Table S4.2 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	DD/MM/YY
Landfill gas	Form LFG 1, or other reporting format to be agreed in writing with the Environment Agency	DD/MM/YY
Particulate matter	Form Particulate 1, or other reporting format to be agreed in writing with the Environment Agency	DD/MM/YY
Waste Return	E-waste Return Form	-
Landfill topographical surveys and interpretation	Topographical survey drawing	-

Schedule 5 – Notification

This page outlines the information that the operator must provide.

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

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

Part A

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

(a) Notification requirements for any incident or accident which significantly affects or may significantly affect the environment	
To be notified within 24 hours of detection	
Date and Time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
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 in the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B to be supplied as soon as practicable

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

“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 Landfill Infrastructure.

“CQA Validation Report” means the final “as built” construction and engineering details 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 Landfill Infrastructure;
- Validation by a qualified person that all of the construction has been carried out in accordance with the Construction Proposals.

“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.

“Emissions to land” includes emissions to groundwater.

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

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

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

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

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

“Landfill infrastructure” means any specified element of the:

- Artificially established geological barrier;
- surface water drainage systems;
- groundwater monitoring boreholes;
- landfill gas monitoring boreholes.

“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.

“MPP” Monitoring point plan, required to specify 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 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).

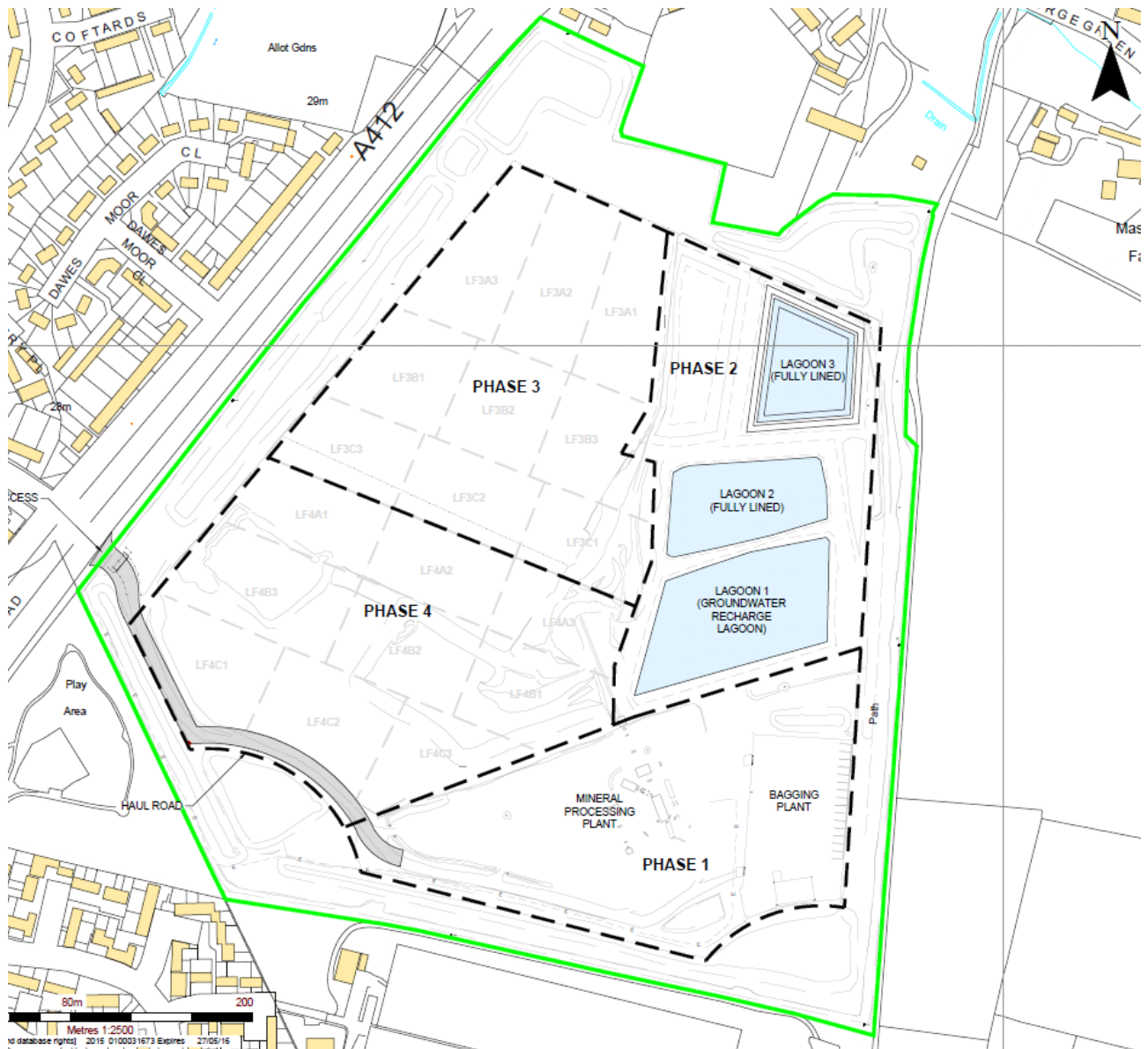
“Relevant waste acceptance procedures” means the procedure for the acceptance of waste at landfills and the associated sampling and test methods specified in the Council Decision Annex (2003/33/EC, European Council of 19 December 2002).

“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” – See “List of Wastes”.

“WFD” means Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste [and repealing certain Directives] – the Waste Framework Directive.

Schedule 7 – Site plan



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