

Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

Ingrebourne Valley Limited

Denham Park Farm Landfill
Denham Green
Buckinghamshire
UB9 5DL

Permit number
EPR/AB3105HD

Denham Park Farm Landfill

Permit number EPR/AB3105HD

Introductory note

This introductory note does not form a part of the permit

The main features of the permit are as follows.

Denham Park Farm Landfill is located approximately 3km to the north east of Gerrards Cross and 5km to the south west of Rickmansworth in the County of Buckinghamshire.

The development is progressive mineral extraction on a phased basis being followed by infilling with inert materials to restore the land back to agricultural use. It is proposed that the imported waste will be subject to treatment by mobile crushing and screening plant to recover materials such as bricks and concrete for reuse. It is not proposed to install any fixed processing plant, and the treatment of the mineral will use mobile low profile 'dry' screening plant.

The mineral deposit is in two parts. In the west of the area, there is a deposit of glacial sand and gravel extending to approximately 0.5 million tonnes. This will be removed from site for processing elsewhere. In the east, the deposit is 'building sand' from the Reading Beds extending to approximately 1.2 million tonnes. This material will be dry screened (possibly requiring some blending with imported coarse sand) and supplied direct to the market.

The nature of the material is such that annual outputs will be around 150,000 tonnes of sand and gravel and 80,000 tonnes of sand. Assuming the sand and gravel is worked before the sand, this gives a 'mineral' period of around 18 years. Infilling and restoration will follow closely the mineral working, and allowing some 2 years to create a void before infilling starts gives an overall life of 20 years.

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/AB3105HD/A001	Duly made 31/01/14	Application for inert landfill and physical treatment
Additional information received	14/04/14	Response to Schedule 5 Notice
Permit determined	23/05/14	Permit issued to Ingrebourne Valley Limited

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2010

Permit number
EPR/AB3105HD

The Environment Agency hereby authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2010

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 waste operations at

Denham Park Farm Landfill
Denham Green
Buckinghamshire
UB9 5DL

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

Name	Date
Derek Franklin	23/05/2014

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

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

1.2 Finance

- 1.2.1 No activities authorised by this permit shall be commenced unless the operator has entered into an Agreement with the Environment Agency to secure financial provision for meeting the obligations under this permit and has provided the provision.
- 1.2.2 The operator shall give prior notice to the Environment Agency of its intention to commence operations at the site.
- 1.2.3 The financial provision provided under condition 1.2.1 above shall thereafter be maintained by the operator throughout the subsistence of the permit and the Operator shall produce evidence of such provision whenever required by the Environment Agency.
- 1.2.4 The operator shall ensure that the charges it makes for the disposal of waste in the landfill cover all of the following:
- (a) the costs of setting up and operating the landfill;
 - (b) the costs of the financial provision required by condition 1.2.1; and
 - (c) the estimated costs for the closure and aftercare of the landfill.

2 Operations

2.1 Permitted activities

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

2.2 The site

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

2.3 Operating techniques

- 2.3.1 (a) The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- (b) If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation ("plan") specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 Waste shall only be accepted if:
- (a) it is of a type and quantity listed in schedule 2 table S2.1; and
- (b) it conforms to the description in the documentation supplied by the producer and holder.

2.4 Pre-operational conditions

- 2.4.1 The operations specified in schedule 1 table S1.4 shall not commence until the measures specified in that table have been completed.

2.5 Landfill Engineering

- 2.5.1 No construction of any new cell 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 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.

- 2.5.3 The operator shall submit a CQA Validation Report to the Environment Agency as soon as practicable following the construction of the new cell.
- 2.5.4 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.
- 2.5.5 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.
- 2.5.6 The operator shall submit a CQA Validation Report as soon as practicable following the construction of the landfill infrastructure.
- 2.5.7 Where pollution controls are immediately necessary to prevent an incident or accident, then conditions 2.5.4 and 2.5.5 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.
- 2.5.8 For the purposes of conditions 2.5.1, 2.5.3 and 2.5.4, 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.
- 2.5.9 Where the Environment Agency has required further information under condition 2.5.8(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, 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.

- 2.6.2 The operator shall visually inspect:
- (a) without unloading it, waste that is not in an enclosed container or enclosed vehicle on arrival at the landfill; and
 - (b) waste at the point of deposit;
- and shall satisfy itself that it conforms to the basic characterisation documentation submitted by the holder.
- 2.6.3 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.
- 2.6.4 The operator on accepting each delivery of waste shall provide a receipt to the person delivering it.
- 2.6.5 The total quantity of waste that shall be deposited in the landfill shall be limited by the pre-settlement levels shown on drawing ESID4.
- 2.6.6 The quantity of waste that is deposited in the landfill in any year shall not exceed the limits in schedule 1 table S1.3.
- 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 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 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.
- 3.1.2 The trigger levels for emissions into groundwater for the parameters and monitoring points set out in schedule 3 table 3.2 shall not be exceeded.
- 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 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 for the parameters specified in the following tables in schedule 3 to this permit:
- (a) Point source emissions specified in table S3.1;
 - (b) Groundwater specified in table S3.2; and
 - (c) Landfill gas 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:
- (a) annually, or prior to the disposal of waste in any new cell or new development area of the landfill whichever is the shorter period, and
 - (b) following closure of the landfill or part of the landfill.
- The topographical survey shall be used to produce a plan of a scale adequate to show the surveyed features of the site.

3.5 Pests

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

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;
 - (iv) the specification and as built drawings of the basal and sidewall 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 all 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 shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) 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 site and any agreed amendments thereto;
 - (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 behavior 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;
- 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; 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.

4.3 Notifications

4.3.1 The Environment Agency shall be notified without delay following the detection of:

- (a) 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;
- (b) the breach of a limit specified in the permit; or
- (c) any significant adverse environmental effects.

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 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

4.3.4 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.

4.3.5 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 "without delay", in which case it may be provided by telephone.

Schedule 1 - Operations

Table S1.1 activities

Activity	Description of activities for waste operations	Limits of specified activity
A1	D1: Deposit to land	The deposit of inert waste in to or on to land
A2	R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced) R3: Recycling/reclamation of organic substances which are not used as solvents R5: Recycling/reclamation of other inorganic compounds D15: Storage pending any of the operations numbered D01 to D14 (excluding temporary storage pending collection on the site where it is produced).	Treatment operations shall be limited to: Physical treatment including manual and mechanical sorting/ separation, screening, crushing, baling of inertwaste for recovery. Secure storage of wastes listed in Table S2.1 pending recovery or disposal. Waste types as specified in Table S2.1 and Table S2.2.

Table S1.2 Operating techniques

Description	Parts	Date Received
Application	Environmental Setting and Design Report - 412.01526.00010/ESID Drawing ESID1 Site Location Plan Drawing ESID2 Environmental Site Setting Drawing ESID3 Cultural and Natural Heritage Drawing ESID4 Site Layout and Waste Deposition Drawing ESID5 Restoration Drawing ESID6 Engineering Drawing ESID7 Drift Geology Drawing ESID8 Solid Geology Drawing ESID9 Local Geological Cross Section Drawing ESID10 Regional Hydrogeology Drawing ESID11 Local Hydrogeology and Hydrology Drawing ESID12 Hydrogeological Cross Sections Hydrogeological Risk Assessment – 412.02934.00003/HRA Landfill Gas Risk Assessment – 412.01526.00010/LRGRA Stability Risk Assessment – 412.01526.00010/SRA H1 Environmental Risk Assessment Operating Techniques and Management System	05/12/2013
Response to Schedule 5 Notice dated 14/03/2014	Response to request for further information.	14/04/2014

Table S1.3 Annual waste input limits

Category	Limit tonnes per year
All operations	400,000

Table S1.4 Pre-operational measures for future development

Reference	Pre-operational Measures
PO1	As filling progresses and following completion of each Phase, install in waste gas monitoring points at a frequency of no less than 2 boreholes per hectare and commence in-waste landfill gas monitoring. The proposals shall be in accordance with the Agency guidance documents LFTGN03 'Guidance on the Management of Landfill Gas'. The Operator shall implement the proposals in accordance with the Environment Agency's written approval and undertake any measures approved in writing by the Environment Agency to the time scales included in the approval.

Schedule 2 - Waste types, raw materials and fuel

Table S2.1 Waste types accepted without testing

Exclusions

Wastes having any of the following characteristics shall not be accepted:

- waste in liquid form
- hazardous wastes

Waste Code	Description
10	WASTE FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS
10 11	wastes from the manufacture of glass and glass products
10 11 03	waste glass based fibrous materials (only without organic binders)
15	WASTE PACKAGING: ABSORBENTS, WIPING CLOTHS, FILTER MATERIAL AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01	packaging (including separately collected municipal packaging waste)
15 01 07	glass packaging
17	CONSTRUCTION AND DEMOLITION WASTE (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
17 01	concrete, bricks and plastic
17 01 01	Concrete ²
17 01 02	Bricks ²
17 01 03	tiles and ceramics ²
17 01 07	mixtures of concrete, bricks and ceramics ²
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	soils and stones not mentioned in 17 05 03 (excluding topsoil, peat; excluding soil and stones from contaminated sites) ¹
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE
19 12	waste from the mechanical treatment of waste (for example, sorting, crushing, compacting, pelletising) not otherwise specified
19 12 05	glass
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)
20 02 02	soil and stones (only from garden and parks waste; excluding top soil and peat)

Table S2.2 Waste types accepted with testing**Exclusions**

Wastes having any of the following characteristics shall not be accepted:

- waste in liquid form
- hazardous wastes

Waste Code	Description
01	WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS
01 01	wastes from mineral excavation
01 01 02	wastes from mineral non-metalliferous excavation
01 03	wastes from physical and chemical processing of metalliferous minerals
01 03 06	tailings other than those mentioned in 01 03 04 and 01 03 05
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*
10	WASTE FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS
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 11	wastes from the 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 MATERIAL AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01	packaging (including separately collected municipal packaging waste)
15 01 07	glass packaging
17	CONSTRUCTION AND DEMOLITION WASTE (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
17 01	concrete, bricks and plastic
17 01 01	Concrete ²
17 01 02	Bricks ²
17 01 03	tiles and ceramics ²
17 01 07	mixtures of concrete, bricks and ceramics ²
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	soils and stones not mentioned in 17 05 03 (excluding topsoil, peat; excluding soil and stones from contaminated sites) ¹
17 05 08	track ballast other than those mentioned in 17 05 07

Table S2.2 Waste types accepted with testing**Exclusions**

Wastes having any of the following characteristics shall not be accepted:

- waste in liquid form
- hazardous wastes

Waste Code	Description
17 09	other construction and demolition wastes
17 09 04	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03**
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE
19 12	waste from the mechanical treatment of waste (for example, sorting, crushing, compacting, pelletising) not otherwise specified
19 12 05	glass
19 12 09	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)
20 02 02	soil and stones (only from garden and parks waste; excluding top soil and peat)

¹ For the purposes of waste acceptance, soil includes naturally occurring sands and clay.

² Selected construction and demolition (C and D) waste only, with low contents of other types of materials (like metals, plastic, soil, organics, wood, rubber etc). The origin of the waste must be known. No C and D waste from constructions polluted with inorganic and organic dangerous substances and no C and D waste from buildings, treated, covered or painted with materials containing dangerous substances in significant amounts.

* For example, silt from dig out of mineral silt ponds

** Comprising a mixture of concrete, bricks, tiles, ceramics, glass, soils & stones eg from uncontaminated areas.

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to water (other than sewer) – emission limits and monitoring requirements

Emission point Ref. & Location	Parameter	Source	Limit (incl unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
Discharge to soakaways and recharge areas shown on Drawing ESID13	Visible oil and grease	Surface water and ground water pumping from the collection pipe in the base of the site.	None visible	Spot Sample	Daily	As specified in Environment
	pH		6-9 pH units		Monthly	Agency Guidance TGN02
	Ammoniacal nitrogen		0.39mg/l		Quarterly	'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water' and Horizontal Guidance Note H1 – Environmental Risk Assessment for permits – Annex J, version 2, April 2010
	Chloride		250mg/l			
	Total Suspended Solids (TSS)		No Limit			
	Sulphate		No limit			
	Total Organic Carbon		No limit			
	Electrical Conductivity		No limit			

Table S3.2 Trigger levels for emissions into groundwater and monitoring requirements

Monitoring point reference (Note1)	Parameter	Limit (including unit)	Reference Period	Monitoring frequency	Monitoring standard or method
Down hydraulic gradient groundwater monitoring points BHD and BHE	Cadmium	0.0001mg/l Note 2	Spot Sample	Quarterly	As specified in Environment Agency Guidance TGN02 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water' and Horizontal Guidance Note H1 – Environmental Risk Assessment for permits – Annex J, version 2, April 2010
	Mercury	0.00001mg/l Note 2			
	Nickel	0.02mg/l Note 2			
	Phenol	0.046mg/l Note 2			
	Sulphate	250mg/l Note 2			

Note 1: As identified on Drawing ESID13

Note 2: The compliance limits for cadmium, mercury, nickel, phenol and sulphate shall be reviewed after 12 months of monitoring .

Table S3.3 Landfill gas monitoring requirements

Monitoring point Ref. /description	Parameter	Limit	Monitoring frequency	Monitoring standard or method
In waste monitoring boreholes installed in accordance with Table S1.4 condition 1	Methane carbon dioxide, oxygen, atmospheric pressure, differential pressure, temperature,	NONE SET	Quarterly	As per TGN 03 issued September 2004 'Guidance on the management of landfill gas' Record whether the ground is: • Waterlogged • Frozen • Snow covered

Table S3.4 Groundwater - other monitoring requirements

Monitoring point Ref. /description	Parameter	Monitoring frequency	Monitoring standard or method
Up hydraulic gradient and lateral groundwater monitoring points BHA, BHB and BHC	Groundwater level in mAOD	Monthly	As specified in Environment Agency Guidance TGN02 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water' and Horizontal Guidance Note H1 – Environmental Risk Assessment for permits – Annex J, version 2, April 2010
Up hydraulic gradient and lateral groundwater monitoring points BHA, BHB and BHC	Electrical conductivity, chloride, ammoniacal-nitrogen, pH, Cadmium, Mercury, Nickel, Phenol, Sulphate	Quarterly	
Up hydraulic gradient and lateral groundwater monitoring points BHA, BHB and BHC	Total alkalinity, magnesium, potassium, calcium, sodium, chromium, copper, zinc, iron, lead, arsenic, manganese, TPH, total PAH, well base in mAOD	Annually	
Down hydraulic gradient groundwater monitoring points BHD and BHE	Groundwater level in mAOD	Monthly	
Down hydraulic gradient groundwater monitoring points BHD and BHE	Electrical conductivity, pH, chloride, ammoniacal nitrogen	Quarterly	

Down hydraulic gradient groundwater monitoring points BH6 and BH7	Total alkalinity, magnesium, potassium, calcium, sodium, chromium, copper, zinc, iron, lead, manganese, TPH, total PAH, well base in mAOD	Annually
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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	Emission or monitoring point/reference	Reporting period	Period begins
Groundwater Parameters as required by condition 3.5.1.	Monitoring point locations as described in Tables S3.2 and S3.4	Quarterly	From date of permit issue
Landfill gas monitoring Parameters as required by condition 3.5.1	In-waste monitoring boreholes (minimum 2 required per hectare) as described in Table S3.3	Quarterly	From date of installation

Table S4.2 Reporting forms

Media/parameter	Reporting format	Date of form
Controlled water	Form water 1 or other reporting format to be agreed in writing with the Environment Agency	From date of permit issue
Groundwater	Form Groundwater 1 or other as agreed in writing by the Environment Agency	From date of permit issue
Landfill gas	Form LFG 1 other form as agreed in writing by the Environment Agency	From date of permit issue
Landfill topographical surveys and interpretation	Reporting format to be agreed in writing by the Environment Agency	From date of permit issue

Schedule 5 - Notification

These pages outline the information that the operator must provide.

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

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

Part A

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

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution

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

(b) Notification requirements for the breach of a limit

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

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

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

Part B - to be submitted 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.

"Construction Proposals";

- for new cells, means written information at a level of detail appropriate to the complexity and pollution risk, on stability assessment (where relevant) and the construction quality assurance (CQA) programme in relation to the new cell.
- for landfill infrastructure, means 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 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-compliance 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.

"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.

"EP Regulations" means The Environmental Permitting (England and Wales) Regulations SI 2010 No.675 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

"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.

"Landfill Infrastructure" means any specified element of the:

- surface water drainage systems;
- groundwater monitoring boreholes;
- landfill gas monitoring boreholes;

within the Site.

"Liquids" means any liquid other than leachate within the landfill.

"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;
- sub-grade;
- artificially established geological barriers;
- cell or area surface water drainage system;
- side wall subgrade and containment systems;

for the new cell.

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

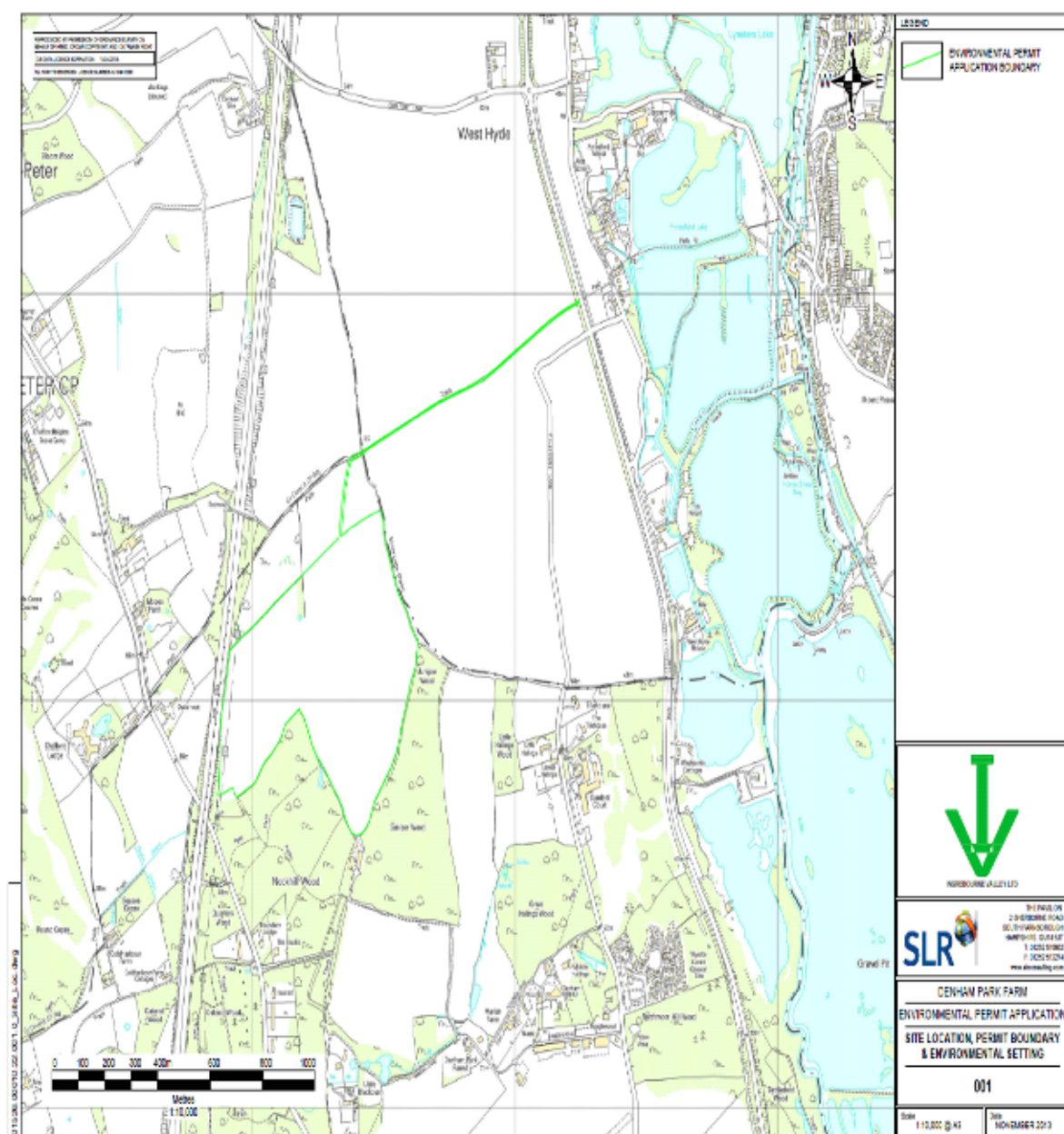
"quarter" means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

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

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

"year" means calendar year ending 31 December.

Schedule 7 - Site plan



¹¹ Crown Copyright. All rights reserved. Environment Agency, 100026380, 2014."

Permit Number: AB3105HD

Operator: Ingrebourne Valley Limited

Facility: Denham Park Farm Landfill

Form Number: Water1 / DD/MM/YY

Reporting of emissions to water (other than to sewer) and land for the period from DD/MM/YYYY to DD/MM/YYYY

Emission Point	Substance / Parameter	Emission		Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
		Limit Value	Reference Period				

- [1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.
- [2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.
- [3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
- [4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed
(Authorised to sign as representative of Operator)

Date.....

Permit Number: AB3105HD

Operator: Ingrebourne Valley Limited

Facility: Denham Park Farm Landfill

Form Number: Groundwater1 / DD/MM/YY

Reporting of groundwater monitoring for the period from DD/MM/YYYY to DD/MM/YYYY

Monitoring Point	Substance / Parameter	Trigger level	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]

- [1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.
- [2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.
- [3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
- [4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed
(Authorised to sign as representative of Operator)

Date.....

Permit Number: AB3105HD

Operator: Ingrebourne Valley Limited

Facility: Denham Park Farm Landfill

Form Number: LFG1 / DD/MM/YY

Reporting of landfill gas monitoring for the period from DD/MM/YYYY to DD/MM/YYYY

Monitoring Point	Substance / Parameter	Compliance limit	Reference Period	Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]

- [1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.
- [2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.
- [3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
- [4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed
(Authorised to sign as representative of Operator)

Date.....