



**ENVIRONMENT
AGENCY**

Variation Notice with introductory note

Pollution Prevention and Control (England & Wales) Regulations 2000

Palleg Landfill Phase II

**JLA Disposal Limited
Palleg Road
Lower Cwmtwrch
Swansea
SA9 2QQ**

**Variation Notice Number
XP3230MQ**

**Permit number
BT1908IX**

Palleg Landfill Phase II

Permit Number BT1908IX

Introductory note

This introductory note does not form a part of the permit

The following notice is issued under regulation 17 of The Pollution Prevention and Control (England and Wales) Regulations 2000 (S.I.2000 No. 1973 (as amended) (the Regulations) to vary the conditions of a permit issued under the Regulations to operate an installation. The notice comprises schedule 1 containing conditions to be deleted, schedule 2 conditions to be amended and schedule 3 conditions to be added.

The variation is Agency initiated and has been undertaken as part of a review of the Landfill Permit Template. The original technical decisions made during determination of the application have not been revisited.

The varied permit is now based on our standard Landfill PPC Permit template (version 4). We developed these conditions in consultation with the waste management industry having regard to the legal requirements of the PPC Regulations, the Landfill Regulations and other relevant legislation.

A non-technical description of the installation is given in the Application, but the main features of the installation are as follows;

Palleg Landfill Phase 2, a new application, is situated on Palleg Road, Cwmtwrch at OS Grid Reference SN 7739 1136. It is situated east of and immediately adjacent to an existing landfill known as Palleg Phase 1 as well as a closed local authority landfill known as Tir Canol. It occupies an area of 2.73 hectares. The site is situated in a relatively remote setting, with just a few residential properties in the vicinity.

Palleg Landfill Phase 2 occupies a watershed between the Tawe and Gwys valley just to the north of Swansea in South Wales. The landfill is underlain by a thick sequence of glacial Boulder Clay (12 to 19 metres) which in turn is underlain by mudstones and thin coal seams of the Coal Measures. Development of the landfill involves excavation of 4 metres depth into the glacial deposits. Water is present in the mudstone bedrock at a depth of 14 metres below the site. However, the aquifer is artesian in nature such that the piezometric groundwater level is situated within the Boulder Clay at a depth of approximately 2 metres above the base of the landfill site.

Emissions to groundwater and surface water will be controlled by the presence of a geological barrier (Boulder Clay) below the base and an artificially established recompacted clay barrier one metre thick below the base and sides of the landfill. A leachate collection blanket with pipework will be laid across the basal lining to intercept leachate. The head of leachate will be controlled by periodic abstraction. Leachate will be transferred by road tanker to a local sewage treatment plant where it will receive treatment. A leachate collection sump is to be constructed on the south-western corner of the site.

The types of waste to be disposed will comprise only non-hazardous and inert materials. Typically, the wastes arise from commercial and industrial premises as well as the nearby civic amenity site. The volume of landfill gas generated is expected to be very low, based on site capacity. However, an extraction system is to be installed which will be used in the event that landfill gas quantities reach a viable point where they can be extracted by pumping and flaring.

The maximum total capacity of the landfill is 117,625 cubic metres (equivalent to 135,268 tonnes). The total permitted annual rate of waste input is 24,999 tonnes. The site will be progressively capped with clay as the next sub-cell is developed, upon completion of landfilling (after approximately 5 years) the site will be restored with soil for agricultural use.

Note that the Permit requires the submission of certain information to the Agency (see Sections 4 and 5). In addition, the Agency has the power to seek further information at any time under regulation 28 to the PPC Regulations provided that it acts reasonably.

Status Log of the permit		
Detail	Date	Response Date
Application BT1908IX	Received 05/10/04	Response 18/10/04
Request to extend determination	Requests dated 18/05/05 and 06/07/05	Responses dated 31/05/05 and 08/07/05
Permit determined	26/07/05	
Variation notice XP3230MQ issued	27/02/2007	

End of Introductory Note

Variation Notice

Pollution Prevention and Control (England and Wales) Regulations 2000
Landfill (England and Wales) Regulations 2002

Variation Notice

Permit number

BT1908IX

Variation number

XP3230MQ

The Environment Agency (the Agency) in exercise of its powers under Regulation 17 of the Pollution Prevention and Control (England and Wales) Regulations 2000 (SI 2000 No 1973) hereby varies the permit held by you

JLA Disposal Limited ("the operator"),

whose registered office is

Glyncynwal Uchaf Farm

Palleg Road

Lower Cwmtwrch

Swansea

SA9 2QQ

company registration number **04582281**

to operate an installation at

Palleg Landfill Phase II

Palleg Road

Lower Cwmtwrch

Swansea

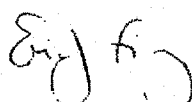
SA9 2QQ

to the extent set out in schedules 1 to 3 of this variation notice .

The notice shall take effect from 27/02/2007

Signed

Date

	27/2/07
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Emily Finney - Team Leader, Strategic Permitting Team, Bristol

Authorised to sign on behalf of the Agency

Variation Number **XP3230MQ**

SCHEDULE 1 – CONDITIONS TO BE DELETED

1. All conditions and schedules are deleted

SCHEDULE 2 – CONDITIONS TO BE AMENDED

2. None

SCHEDULE 3 – CONDITIONS TO BE ADDED

3. The following conditions are added to the permit as shown in Schedule 3

Conditions

1. Management

1.1 General management

1.1.1 The activities shall be managed and operated:

- (a) in accordance with a management system, which identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents and non-conformances and those drawn to the attention of the operator as a result of complaints; and
- (b) by sufficient persons who are competent in respect of the responsibilities to be undertaken by them in connection with the operation of the activities.

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.

1.2 Accidents that may cause pollution

1.2.1 The operator shall:

- (a) maintain and implement an accident management plan;
- (b) review and record at least every 4 years or as soon as practicable after an accident, (whichever is the earlier) whether changes to the plan should be made;
- (c) make any appropriate changes to the plan identified by a review.

1.3 Finance

1.3.1 The financial provision for meeting the obligations under this permit set out in the agreement made between the operator and the Agency dated 26/0705 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 Agency.

1.3.2 The operator shall ensure that the charges it makes for the disposal of waste in the landfill cover the cost of operating the landfill, as far as possible the cost of the financial provision required by condition 1.3.1 and the estimated costs for the closure and aftercare of the landfill.

1.4 Energy efficiency

1.4.1 The operator shall:

- (a) Review and record at least every 4 years whether there are suitable opportunities to improve the energy efficiency of the activities; and
- (b) Implement any appropriate measures identified by a review.

1.5 Site security

1.5.1 Site security measures shall prevent unauthorised access to the site, as far as practicable.

2. Operations

2.1 Permitted activities

2.1.1 The operator is 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 blue on the site plan at schedule 2 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 Agency.

2.4 Off-site conditions

There are no conditions in this permit to which regulation 12(12) of the PPC Regulations apply.

2.5 Improvement programme

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

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

2.6 Pre-operational conditions

- 2.6.1 The activities shall not be brought into operation until the measures specified in schedule 1 table S1.4 have been completed.

2.7 Engineering

- 2.7.1 No construction of any new cell shall commence until the operator has submitted construction proposals and the Agency has confirmed that it is satisfied with the construction proposals.
- 2.7.2 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 Agency.
- 2.7.3 No disposal of waste shall take place in a new cell until the operator has submitted a CQA Validation Report and the Agency has confirmed that it is satisfied with the CQA Validation Report.
- 2.7.4 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 Agency has confirmed that it is satisfied with the construction proposals.
- 2.7.5 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 Agency.
- 2.7.6 The operator shall submit a CQA Validation Report as soon as practicable following the construction of the relevant landfill Infrastructure.
- 2.7.7 Where pollution controls are immediately necessary to prevent an incident or accident, then conditions 2.7.4 and 2.7.5 do not apply and the relevant landfill Infrastructure may be constructed, provided that the construction proposals are submitted to the Agency as soon as practicable.
- 2.7.8 For the purposes of conditions 2.7.1, 2.7.3 and 2.7.4, the Agency shall be deemed to be satisfied where it has not, within the period of 4 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.

2.8 Waste acceptance

- 2.8.1 Wastes shall only be accepted for disposal if:
- (a) they are listed in schedule 3, and
 - (b) they are non- hazardous waste

- (c) they are not whole used tyres (other than bicycle tyres and tyres with an outside diameter of more than 1400mm), and
- (d) they are not shredded used tyres, and
- (e) from 30th October 2007 they are not liquid waste (including waste waters but excluding sludge), and
- (f) they are not chemical substances from research and development or teaching activities, for example laboratory residues, which are unidentified and/or which are new and whose effects on man and/or the environment are unknown, and
- (g) all the relevant waste acceptance procedures set out in schedule 1 of the Landfill Regulations have been completed, and
- (h) they fulfil the relevant waste acceptance criteria, and
- (i) they have not been diluted or mixed solely to meet the relevant waste acceptance criteria, and
- (j) from 30th October 2007 they are wastes which have been treated, except for: inert wastes for which treatment is not technically feasible; or it is waste other than inert waste and treatment would not reduce its quantity or the hazards which it poses to human health or the environment, [or liquid waste accepted for treatment at a permitted leachate treatment activity.
- (k) any code beginning with 07 05 and 16 03 shall exclude waste medicinal products and pharmaceutically active waste materials arising from their manufacture

2.8.2 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.

2.8.3 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.

2.8.4 The operator on accepting each delivery of waste shall provide a receipt to the person delivering it.

2.8.5 The total quantity of waste that shall be deposited in the landfill shall be limited by the pre-settlement levels shown on drawing required under improvement condition 2.5.1, Schedule 1, Table S1.3, reference 1.

2.8.6 The quantity of waste that is deposited in the landfill in any year shall not exceed the limits in schedule 1 table S1.5.

2.8.7 The operator shall maintain and implement a system which ensures that a record is made of the quantity, characteristics, date of delivery and, where practicable, origin of any waste that is received for disposal or recovery and of the identity of the producer, or in the case of municipal waste and multiple collection vehicles, of the collector of such waste. Any information regarded by the operator as commercially confidential shall be clearly identified in the record.

2.9 Leachate levels

- 2.9.1 The limits for the level of leachate listed in schedule 4 table S4.1 shall not be exceeded.

2.10 Closure, aftercare and decommissioning

- 2.10.1 The operator shall maintain and operate the activities so as to prevent or where that is not practicable, to minimise, any pollution risk on closure and decommissioning.
- 2.10.2 The operator shall maintain a site closure plan which demonstrates how the activities can be decommissioned to avoid any pollution risk and return the site of operation to a satisfactory state.
- 2.10.3 The operator shall carry out and record a review of the site closure plan at least every 4 years.
- 2.10.4 The site closure plan (or relevant part thereof) shall be implemented on final cessation or decommissioning of the activities or part thereof.

2.11 Site protection and monitoring programme

- 2.11.1 The operator shall, within 6 months of the issue of this variation notice, submit a Site Protection and Monitoring Programme.
- 2.11.2 The operator shall implement and maintain the Site Protection and Monitoring Programme in relation to all areas which will not comprise permanent deposits of waste and shall carry out and record a review of it at least every 4 years commencing from the date the Site Protection and Monitoring Programme was received.

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 4 tables S4.2, and S4.3.
- 3.1.2 The limits given in that schedule shall not be exceeded, save that compliance with an emission limit shall include incorporation of the uncertainty allowance stated in Agency guidance LFTGN 05 and LFTGN 08.

3.2 Emissions to groundwater

- 3.2.1 There shall be no emission from the activities into groundwater of any substance in List I (as defined by the Groundwater Regulations) contrary to those regulations.
- 3.2.2 There shall be no emission from the activities into groundwater of any substance in List II (as defined in the Groundwater Regulations) so as to cause pollution (as defined in those regulations).

- 3.2.3 The trigger levels for emissions into groundwater for the parameter(s) and monitoring point(s) set out in schedule 4 Table S4.4 shall not be exceeded.
- 3.2.4 The operator shall submit to the Agency a review of the Hydrogeological Risk Assessment:
- (a) between 9 and 6 months prior to the fourth anniversary of the granting of the permit, and
 - (b) between 9 and 6 months prior to every subsequent 4 years after the fourth anniversary of the granting of the permit.

3.3 Fugitive emissions of substances

- 3.3.1 Fugitive emissions of substances (excluding odour, noise and vibration) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.3.2 Litter or mud arising from the activities shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, have been used to prevent or where that is not practicable to minimise, the litter and mud.
- 3.3.3 Litter or mud arising from the activities shall be cleared from affected areas outside the site as soon as practicable.
- 3.3.4 All liquids, 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.
- 3.3.5 The limits for landfill gas arising from the installation set out in schedule 4, table S4.5 shall not be exceeded.

3.4 Odour

- 3.4.1 Emissions from the activities shall be free from odour at levels likely to cause annoyance outside the site, as perceived by an authorised officer of the Agency, unless the operator has used appropriate measures to prevent or where that is not practicable to minimise the odour.

3.5 Noise and vibration

- 3.5.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause annoyance outside the site, as perceived by an authorised officer of the Agency, unless the operator has used appropriate measures to prevent or where that is not practicable to minimise the noise and vibration.

3.6 Monitoring

- 3.6.1 The operator shall, unless otherwise agreed in writing by the Agency, undertake the monitoring specified in the following tables in schedule 4 to this permit:
- (a) Leachate specified in tables S4.1 and S4.7;

- (b) Point source emissions specified in tables S4.2 and S4.3
 - (c) Groundwater specified in tables S4.4 and S4.10
 - (d) Landfill gas specified in tables S4.5, S4.6 and S4.8
 - (e) Surface water specified in table S4.3 and S4.9
- 3.6.2 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.
- 3.6.3 A topographical survey of the site referenced to ordnance datum shall be carried out:
- (a) annually, and
 - (b) prior to the disposal of waste in any new cell or new development area of the landfill, and
 - (c) following closure of the landfill or part of the landfill.
- The topographical survey shall be used to produce a plan of a scale adequate to show the surveyed features of the site.
- 3.6.4 Within 10 months of the issue of this permit (unless otherwise agreed in writing by the Agency) the site reference data identified in the Site Protection and Monitoring Programme shall be collected and submitted to the Agency.

3.7 Transfers off-site

- 3.7.1 Records of all the wastes sent off site from the activities, for either disposal or recovery, shall be maintained.

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 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) the Site Protection and Monitoring Programme;
 - (iii) sub-surface landfill gas monitoring;
 - (iv) leachate levels, quality and quantities;

- (v) landfill gas generation and collection;
- (vi) waste types and quantities;
- (vii) topographical surveys;
- (viii) the specification and as built drawings of the basal, sidewall and capping engineering systems

- 4.1.2. Any records required to be made by this permit shall be supplied to the Agency within 14 days where the records have been requested in writing by the Agency.
- 4.1.3. All records required to be held by this permit shall be available for inspection by the Agency at any reasonable time.

4.2 Reporting

- 4.2.1 A report or reports on the performance of the activities over the previous year shall be submitted to the Agency by 31 January (or other date agreed in writing by the 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 with the application;
- (b) where the operator's management system encompasses annual improvement targets, a summary report of the previous year's progress against such targets;
- (c) the energy consumed at the site, reported in the format set out in schedule 5 table S5.3
- (d) the water consumed at the site, reported in the format set out in schedule 5 table S5.3;
- (e) the annual production/treatment set out in schedule 5 table S5.2;
- (f) details of any contamination or decontamination of the site which has occurred;
- (g) the topographical surveys required by condition 3.6.3 other than those submitted as part of a CQA validation report;
- (h) 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;
- (i) 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;
- (j) a calculation of the remaining capacity (reported in cubic metres) derived from the pre-settlement contours and the most recent topographical survey;
- (k) the compliance testing undertaken in the period;

- 4.2.2 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the 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 5 Table S5.1;
 - (b) for the reporting periods specified in schedule 5 Table S5.1 and using the forms specified in schedule 5 Table S5.4; and
 - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.3 A summary report of the waste types and quantities accepted and removed from the site shall be made for each quarter. It shall be submitted to the Agency within one month of the end of the quarter and shall be in the format required by the Agency.
- 4.2.4 The operator shall, unless notice under this condition has been served within the preceding 4 years, submit to the Agency, within 6 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.
- 4.2.5 All reports and notifications required by the permit shall be sent to the Agency using the contact details supplied in writing by the Agency
- 4.2.6 The results of reviews and any changes made to the Site Protection and Monitoring Programme shall be reported to the Agency, within 1 month of the review or change.

4.3 Notifications

- 4.3.1 The Agency shall be notified without delay following the detection of:
- (a) any malfunction, breakdown or failure of equipment or techniques, accident, or fugitive emission which has caused, is causing or may cause significant pollution;
 - (b) the breach of a limit specified in the permit;
 - (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 6 to this permit within the time period specified in that schedule.
- 4.3.3. Prior written notification shall be given to the Agency of the following events and in the specified timescales:
- (a) as soon as practicable prior to the permanent cessation of any of the permitted activities;
 - (b) as soon as practicable prior to the cessation of the landfill disposal activities, for a period likely to exceed 1 month; and
 - (c) at least 7 days prior to the resumption of the landfill disposal activities after a cessation notified under (b) above.
- 4.3.4 The Agency shall be given at least 14 days notice before implementation of any part of the site closure plan in respect of any activities other than the disposal of waste in the landfill.
- 4.3.5 Where the 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 Agency when the relevant monitoring is to take place. The operator shall provide this information to the Agency at least 14 days before the date the monitoring is to be undertaken.

- 4.3.6 The Agency shall be notified within 7 days of any changes in technically competent management and the name of any incoming person together with evidence that such person has the required technical competence.
- 4.3.7 The Agency shall be provided, within 14 days of the operator or any relevant person being convicted of a relevant offence, (unless such information has already been notified to the Agency), with details of the nature of the offence, the place and date of conviction, and the sentence imposed.
- 4.3.8 The Agency shall be notified within 14 days of the operator and/or any relevant person lodging an appeal against a conviction for any relevant offence and of the outcome when the appeal is decided.
- 4.3.9 The Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:
- (a) any change in the operator's trading name, registered name or registered office address;
 - (b) any change to particulars of the operator's ultimate holding company (including details of an ultimate holding company where an operator has become a subsidiary); and
 - (c) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

4.4 Interpretation

- 4.4.1 In this permit the expressions listed in schedule 7 shall have the meaning given in that schedule.

Schedule 1 - Operations

Table S1.1 Activities

Activity listed in Schedule 1 of the PPC Regulations	Description of specified activity	Limits of specified activity
Section 5.2 Part A(1) (a) , The disposal of waste in a landfill.	Landfill for non-hazardous waste (landfill classification under the Landfill Regulations 2002)	Receipt, handling, storage and disposal of wastes, consisting of the types and quantities specified in conditions 2.8, as an integral part of landfilling.
Directly Associated Activity		
Leachate management e.g. biological treatment of leachate.	Storage and treatment of leachate in a facility with a capacity of <50 t/day. Leachate is currently transferred by road.	Leachate arising from the landfill.
Landfill gas flaring	Flaring of landfill gas for disposal in an appliance.	Landfill gas arising from the landfill.
Water discharges to controlled waters.	Discharges of site drainage from the landfill.	From surface water management system to point of entry to controlled waters.

Table S1.2 Operating techniques

Description	Parts	Date Received
Application	The response to questions 2.1, 2.2, 2.3, 2.4 and 2.5 in part B of the application form	05 October 2004
Site Protection and Monitoring Programme	Site Protection and Monitoring Plan submitted in response to condition 2.11 of this permit.	

Table S1.3 Improvement programme requirements

Reference	Requirement	Date
1	Submit a plan showing final pre settlement levels for the landfill	3 months from variation issue date
2	Establish and maintain arrangements for storage treatment and disposal of leachate as detailed in documents reference Leachate Treatment Plant Proposed Concept and Outline Specification, October 2005, Leachate Treatment Plant, Technical Specification, 25/5/06 and Correspondence and attachments from Andrea Powell entitled Improvement Programme - Leachate Treatment System dated 10/8/06.	26/05/2007
3a	The Operator shall submit a report to the Agency for approval that reviews the site monitoring plan to include six monthly analysis for: <ul style="list-style-type: none"> A representative range of List I substances including cadmium, mercury, mecoprop, phenol and toluene; At all groundwater and leachate monitoring points	Prior to tipping of wastes
3b	On approval, the monitoring suite shall be incorporated into the operators site monitoring plan and tables S4 7. And S4 11 of this variation shall read as if these are included.	Immediately, on receipt of written approval
4a	The operator shall submit to the Agency for written approval, a review of groundwater trigger levels at down gradient monitoring boreholes. The review shall establish location specific trigger levels for each determinand to be incorporated into the site monitoring plan	Within 6 months of compliance of improvement condition 3a.
4b	On approval, the trigger levels agreed under 4a above shall be incorporated into the site monitoring plan and Table S4.4 shall read as if it contained these figures.	Immediately on receipt of written approval from the Agency.
5a	The operator shall establish background concentrations of CH4 and CO2 in existing external landfill gas monitoring boreholes. The proposed background levels shall be submitted for approval to the Environment Agency	6 months from variation issue date
5b	On written approval from the Agency, the agreed background levels shall be incorporated into the site monitoring plan.	Immediately on receipt of written approval from the Agency

Table S1.4 Pre-operational measures

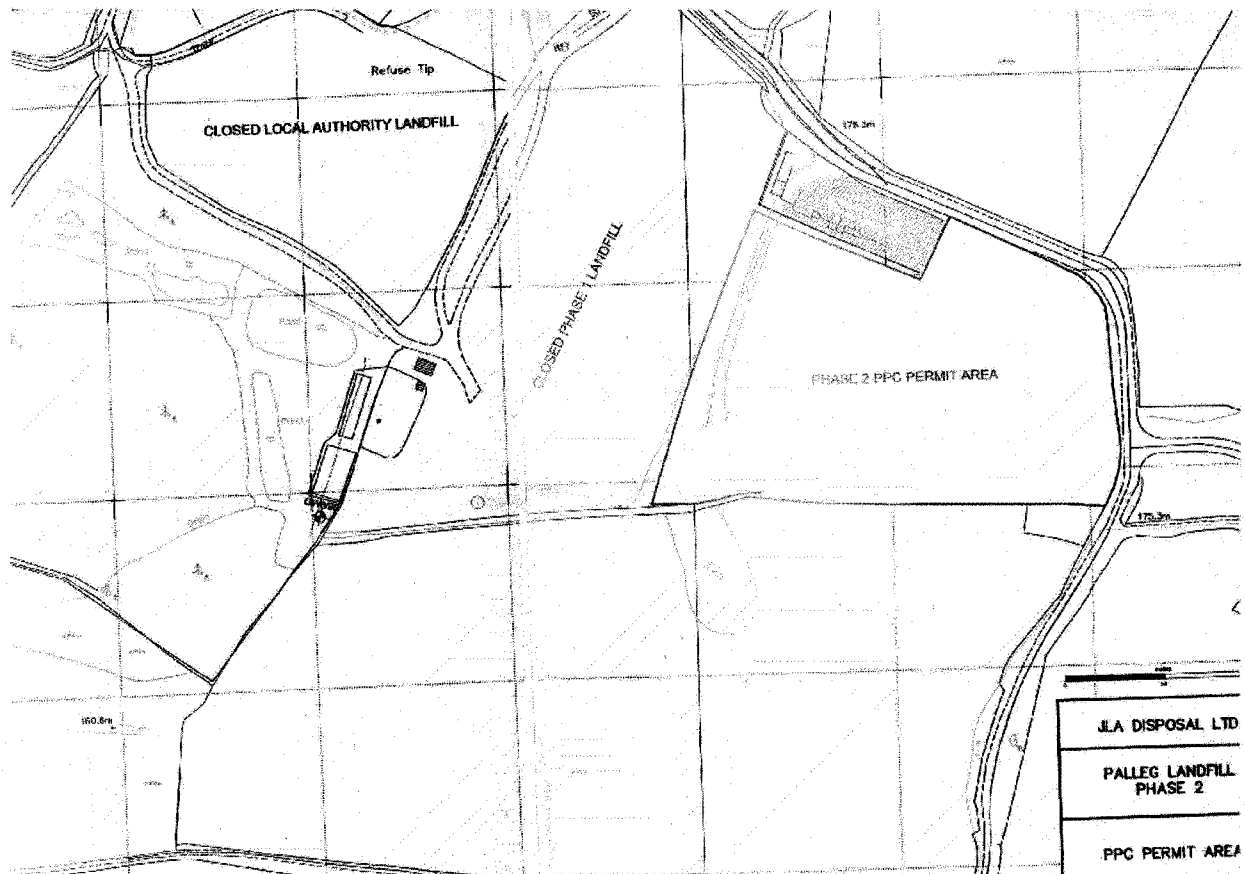
Pre-operational Measures	
1	Commence monitoring of the determinands at the locations agreed under improvement condition 3a.

Table S1.5 Annual waste input limits

Category	Limit Tonnes/ Year
Non-hazardous waste including inert waste	24,999 in total

Schedule 2 - Site plan

Extracted from Site Plan Drawing number 249 Figure 2



Schedule 3 - List of permitted wastes

EWC 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 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 13	wastes from stone cutting and sawing other than those mentioned in 01 04 07
02	WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING
02 01	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 04	waste plastics (except packaging)
02 01 10	waste metal
02 04	wastes from sugar processing
02 04 02	off-specification calcium carbonate
03	WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURNITURE, PULP, PAPER AND CARDBOARD
03 01	wastes from wood processing and the production of panels and furniture
03 01 01	waste bark and cork
03 01 05	sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
03 03	wastes from pulp, paper and cardboard production and processing
03 03 01	waste bark and wood
03 03 07	mechanically separated rejects from pulping of waste paper and cardboard
03 03 08	wastes from sorting of paper and cardboard destined for recycling
03 03 10	fibre rejects, fibre-, filler- and coating-sludges from mechanical separation
04	WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES
04 01	wastes from the leather and fur industry
04 01 09	wastes from dressing and finishing
04 02	wastes from the textile industry
04 02 21	wastes from unprocessed textile fibres
04 02 22	wastes from processed textile fibres
07	WASTES FROM ORGANIC CHEMICAL PROCESSES
07 02	wastes from the MFSU of plastics, synthetic rubber and man-made fibres
07 02 13	waste plastic
09	WASTES FROM THE PHOTOGRAPHIC INDUSTRY
09 01	wastes from the photographic industry
09 01 10	single-use cameras without batteries
09 01 12	single-use cameras containing batteries other than those mentioned in 09 01 11
10	WASTES FROM THERMAL PROCESSES
10 02	wastes from the iron and steel industry
10 02 01	wastes from the processing of slag
10 02 02	unprocessed slag
10 05	wastes from zinc thermal metallurgy
10 05 01	slags from primary and secondary production

EWC Code	Description
10 06	wastes from copper thermal metallurgy
10 06 01	slags from primary and secondary production
10 07	wastes from silver, gold and platinum thermal metallurgy
10 07 01	slags from primary and secondary production
10 08	wastes from other non-ferrous thermal metallurgy
10 08 09	other slags
10 09	wastes from casting of ferrous pieces
10 09 06	casting cores and moulds which have not undergone pouring other than those mentioned in 10 09 05
10 09 08	casting cores and moulds which have undergone pouring other than those mentioned in 10 09 07
10 10	wastes from casting of non-ferrous pieces
10 10 06	casting cores and moulds which have not undergone pouring, other than those mentioned in 10 10 05
10 10 08	casting cores and moulds which have undergone pouring, other than those mentioned in 10 10 07
10 11	wastes from manufacture of glass and glass products
10 11 03	waste glass-based fibrous materials
10 11 12	waste glass other than those mentioned in 10 11 11
10 13	wastes from manufacture of cement, lime and plaster and articles and products made from them
10 13 14	waste concrete and concrete sludge
12	WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS
12 01	wastes from shaping and physical and mechanical surface treatment of metals and plastics
12 01 05	plastics shavings and turnings
15	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE
15 01	packaging (including separately collected municipal packaging waste)
15 01 01	paper and cardboard packaging
15 01 02	plastic packaging
15 01 03	wooden packaging
15 01 04	metallic packaging
15 01 05	composite packaging
15 01 06	mixed packaging
15 01 09	textile packaging
15 02	absorbents, filter materials, wiping cloths and protective clothing
15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02
16	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 01	end-of-life vehicles from different means of transport (including off-road machinery) and wastes from
16 01 18	non-ferrous metal
16 01 19	Plastic
16 01 20	Glass
16 03	off-specification batches and unused products
16 03 04	inorganic wastes other than those mentioned in 16 03 03
16 03 06	organic wastes other than those mentioned in 16 03 05
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
17 01	concrete, bricks, tiles and ceramics
17 01 01	Concrete
17 01 02	Bricks
17 01 03	tiles and ceramics
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 02	wood, glass and plastic

EWC Code	Description
17 02 01	Wood
17 02 02	Glass
17 02 03	Plastic
17 04	metals (including their alloys)
17 04 07	mixed metals
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
17 05 08	track ballast other than those mentioned in 17 05 07
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 PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION/INDUSTRIAL USE
19 02	wastes from physico/chemical treatments of waste (including dechromatation, decyanidation,
19 02 03	premixed wastes composed only of non-hazardous wastes
19 03	stabilised/solidified wastes
19 03 05	stabilised wastes other than those mentioned in 19 03 04
19 03 07	solidified wastes other than those mentioned in 19 03 06
19 04	vitrified waste and wastes from vitrification
19 04 01	vitrified waste
19 05	wastes from aerobic treatment of solid wastes
19 05 01	non-composted fraction of municipal and similar wastes
19 05 03	off-specification compost
19 08	wastes from waste water treatment plants not otherwise specified
19 08 01	Screenings
19 08 02	waste from desanding
19 09	wastes from the preparation of water intended for human consumption or water for industrial use
19 09 01	solid waste from primary filtration and screenings
19 10	wastes from shredding of metal-containing wastes
19 10 01	iron and steel waste
19 10 02	non-ferrous waste
19 10 06	other fractions other than those mentioned in 19 10 05
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising)
19 12 01	paper and cardboard
19 12 02	ferrous metal
19 12 04	plastic and rubber
19 12 05	Glass
19 12 07	wood other than that mentioned in 19 12 06
19 12 08	Textiles
19 12 09	minerals (for example sand, stones)
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES)
20 01	separately collected fractions (except 15 01)
20 01 01	paper and cardboard
20 01 02	Glass
20 01 10	Clothes
20 01 11	Textiles
20 01 36	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35

EWC Code	Description
20 01 38	wood other than that mentioned in 20 01 37
20 01 39	Plastics
20 01 40	Metals
20 01 41	wastes from chimney sweeping
20 02	garden and park wastes (including cemetery waste)
20 02 02	soil and stones
20 02 03	other non-biodegradable wastes
20 03	other municipal wastes
20 03 01	mixed municipal waste
20 03 03	street-cleaning residues
20 03 07	bulky waste

Schedule 4 – Emissions and monitoring

Table S4.1 Leachate level limits and monitoring requirements

Monitoring point reference/ Description	Limit	Monitoring frequency	Monitoring method
L1 as shown on drawing no 249 figure 22	1.5 meters above the base of the abstraction sump.	Monthly	Unless otherwise agreed in writing with the agency monitoring methods used shall be in accordance with Agency guidance document 'guidance on monitoring of landfill leachate, groundwater and surface water (LFTGN02)'
L2 to L6 as shown on drawing no 249 figure 22	1 meter above the basal lining	Monthly	

Table S4.2 Point source emissions to air – emission limits and monitoring requirements

Emission point Ref. & Location	Parameter	Source	Limit (including unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
Flare	Nitrogen Oxides (Nox)	Landfill waste mass	150mg/m ³	Hourly mean	Annually	ISO10849
Flare	Carbon Monoxide (CO)	Landfill waste mass	50mg/m ³	Hourly mean	Annually	ISO12039
Flare	Total Volatile Organic Compounds (VOCs)	Landfill waste mass	10mg/m ³	Hourly mean	Annually	BS EN 13526
Flare	Non methane volatile organic compounds (NMVOCs)	Landfill waste mass	5mg/m ³	Hourly mean	Annually	BS EN 13649:2002

Table S4.3 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
S1, S2, S3, and S4 as shown on Fig 22 monitoring plan	Suspended Solids	Surface water drainage from the installation	75mg/l	Spot Sample	Monthly	Unless otherwise agreed in writing with the Agency monitoring methods used shall be in accordance with Agency guidance document 'guidance on monitoring of landfill leachate, groundwater and surface water (LFTGN02)'
S1, S2, S3, and S4 as shown on Fig 22 monitoring plan	pH	Surface water drainage from the installation	5.5 to 9.5	Spot Sample	Monthly	
S1, S2, S3, and S4 as shown on Fig 22 monitoring plan	Electrical Conductivity	Surface water drainage from the installation	800 uS/cm	Spot Sample	Monthly	
S1, S2, S3, and S4 as shown on Fig 22 monitoring plan	COD	Surface water drainage from the installation	600 mg/l	Spot Sample	Monthly	
S1, S2, S3, and S4 as shown on Fig 22 monitoring plan	Ammoniacal Nitrogen	Surface water drainage from the installation	0.75mg/l	Spot Sample	Monthly	
S1, S2, S3, and S4 as shown on Fig 22 monitoring plan	Chloride	Surface water drainage from the installation	100mg/l	Spot Sample	Monthly	

Table S4.4 Trigger levels for emissions into groundwater and monitoring requirements

Monitoring point reference	Parameter	Limit (including unit)	Reference Period	Monitoring frequency	Monitoring standard or method
Downstream Monitoring Points GW2 GW4 and GW7 as shown on figure 22 Monitoring plan	Ammoniacal Nitrogen	2.5mg/l	Spot Sample	quarterly	Unless otherwise agreed in writing with the agency monitoring methods used shall be in accordance with Agency guidance document 'guidance on monitoring of landfill leachate, groundwater and surface water (LFTGN02)'
	Chloride	200 mg/l	Spot Sample	quarterly	
	Zinc	0.1mg/l	Spot Sample	quarterly	
	Cadmium	0.005mg/l	Spot Sample	Six-monthly	
	Mercury	0.001mg/l	Spot Sample	Six-monthly	
	Mecoprop	0:0004mg/l	Spot Sample	Six-monthly	
	Phenols	0.0005mg/l	Spot Sample	Six-monthly	
	Toluene	0.004mg/l	Spot Sample	Six-monthly	

Table S4.5 Landfill gas in external monitoring boreholes – limits and monitoring requirements

Monitoring point Ref. /description	Parameter	Limit (including units) *	Monitoring frequency	Monitoring standard or method
Peripheral landfill gas monitoring boreholes GA7 to GA10	Carbon dioxide	1.5% Vol in air *	Monthly	Environment Agency Guidance LFGTN03
Peripheral landfill gas monitoring boreholes GA7 to GA10	Methane	1.0% Vol in air *	Monthly	Environment Agency Guidance LFGTN03

* NB. The limits specified may need to be altered to take account of the background concentrations agreed in writing with the Environment Agency as a result of improvement condition S1.3 IC (1)

Table S4.6 Landfill gas from capped surfaces - monitoring requirements

Monitoring point Ref. /description	Parameter	Monitoring frequency	Other specifications	Monitoring Standard or method
Permanently capped zone	Average Methane flux	Annually	Where a rate of 0.001 mg/m ² /second is exceeded appropriate measures must be taken to reduce the rate.	Flame ionisation detector walkover, flux box or as otherwise agreed in writing by the Agency*.
Temporarily capped zone	Average Methane flux	Annually	Where a rate of 0.1 mg/m ² /second is exceeded appropriate measures must be taken to reduce the rate.	Flame ionisation detector walkover, flux box or as otherwise agreed in writing by the Agency*.

Footnote * If a cap has previously been shown compliant and there have been no significant physical changes in the gas management during the year, a detailed walkover survey with an FID can be used to demonstrate that the surface emissions are under control. If this survey shows no change in the pattern of methane emission, it may be used as the annual survey. The values for flux and total methane emissions measured in the previous year may be reported and a fresh flux box survey is not necessary. If the zone remains stable, the results of a full walkover survey may be accepted as the site report for a period of four years before a further quantitative flux box survey is required.

Table S4.7 Leachate– other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
L1 to L6 as shown on drawing no 249 figure 22	<p>Water level, Temp, pH, Electrical Conductivity, Ammoniacal Nitrogen, Total Oxidised Nitrogen, Total Organic carbon, Biochemical Oxygen Demand, Chemical Oxygen demand, Arsenic, Boron, Chromium, Copper, Cadmium, Iron, lead, Manganese, Mercury, Nickel, zinc, Calcium, Magnesium, Sodium, Potassium, sulphate, Total alkalinity, Chloride, Organophosphorous (VOC's), Semi VOC's, Organotins, (speciated), Organochlorine Pesticides, Organophosphorous Pesticides, Triazine Herbicides.</p> <hr/> <p>Analysis for prominent List I substances</p>	6 Monthly	Unless otherwise agreed in writing with the agency monitoring methods used shall be in accordance with Agency guidance document 'guidance on monitoring of landfill leachate, groundwater and surface water (LFTGN02)'	None

Table S4.8 Landfill gas – other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
in waste monitoring boreholes GA1-GA6	Methane(% Vol) Carbon Dioxide (% Vol) Oxygen (% Vol) Hydrogen Sulphide (ppm) Relative Barometric pressure (mBar) Atmospheric Barometric Pressure (mBar) Gas Flow Rate(L/hr) Gas Volume (m3)	Monthly or as otherwise agreed in writing with the Environment Agency	Environment Agency Guidance LFGTN03	Where the Oxygen level exceeds 5% or where the addition of the Carbon Dioxide and Methane percentages is less than 80%, an assessment of air ingress into the system shall be undertaken
Input to Flare 1	Methane Carbon Dioxide Oxygen Gas flow rate	Continuous	Environment Agency Guidance LFGTN03	Where the Oxygen level exceeds 5% or where the addition of the Carbon Dioxide and Methane percentages is less than 80%, an assessment of air ingress into the system shall be undertaken

Table S4.9 Surface water – other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
SWMP S1,S2,S3 and S4	Temp, pH, electrical Conductivity, Dissolved Oxygen, Total Suspended Solids, Ammoniacal Nitrogen, Total Oxidised Nitrogen, Total Organic carbon, Biochemical Oxygen Demand, Chemical Oxygen demand, Arsenic, Boron, Cadmium, Chromium, Copper, Iron, lead, Manganese, Nickel, zinc, Calcium, Magnesium, Sodium, Potassium, sulphate, Total alkalinity, Chloride.	Monthly	Unless otherwise agreed in writing with the agency monitoring methods used shall be in accordance with Agency guidance document 'guidance on monitoring of landfill leachate, groundwater and surface water (LFTGN02)'	None

Table S4.10 Groundwater – other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
GW2 to GW5	Water level, Temp, pH, electrical Conductivity, Ammoniacal Nitrogen, Total Oxidised Nitrogen, Total Organic carbon, Biochemical Oxygen Demand, Chemical Oxygen demand, Arsenic, Boron, Chromium, Copper, Iron, lead, Manganese, Nickel, zinc, Calcium, Magnesium, Sodium, Potassium, sulphate, Total alkalinity, Chloride	Quarterly	Unless otherwise agreed in writing with the agency monitoring methods used shall be in accordance with Agency guidance document 'guidance on monitoring of landfill leachate, groundwater and surface water (LFTGN02)'	None
	Analysis for prominent List I substances	6 Monthly		
GW7	Water level, Temp, pH, electrical Conductivity, Ammoniacal Nitrogen, Total Oxidised Nitrogen, Total Organic carbon, Biochemical Oxygen Demand, Chemical Oxygen demand, Arsenic, Boron, Chromium, Copper, Cadmium, Iron, lead, Manganese, Mercury, Nickel, zinc, Calcium, Magnesium, Sodium, Potassium, sulphate, Total alkalinity, Chloride	Quarterly		
	Analysis for prominent List I substances	6 Monthly		

Schedule 5 - Reporting

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

Table S5.1 Reporting of monitoring data

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Leachate levels As required by condition 3.6.1	L2 to L6 as shown on drawing no 249 figure 22	Monthly	26/0705
Emissions to air Parameters as required by condition 3.6.1	GA1 To GA6 in waste monitoring points, Flare	Quarterly	26/0705
Emissions to water Parameters as required by condition 3.6.1	S1, S2, S3, and S4	Monthly	26/0705
Groundwater Parameters as required by condition 3.6.1	Downstream Monitoring Points GW2 GW4 and GW7 as shown on figure 22 Monitoring plan Ammoniacal Nitrogen only Nitrogen Chloride Zinc Cadmium Mercury Mecoprop Phenols Toluene	Quarterly Quarterly Quarterly Quarterly Six-monthly Six-monthly Six-monthly Six-monthly Six-monthly	26/0705
Landfill gas surface emissions Parameters as required by condition 3.6.1	Monitoring points specified in Table S4.6	Annually	26/0705
Other Landfill gas monitoring Parameters as required by condition 3.6.1	Monitoring points specified in Table S4.8	Monthly	
Other surface water monitoring Parameters as required by condition 3.6.1	Monitoring points specified in Table S4.9	Monthly	
Other groundwater monitoring Parameters as required by condition 3.6.1	Monitoring points specified in Table S4.10	As shown in Table S4.10	
Other leachate monitoring Parameters as required by condition 3.6.1	Monitoring points specified in Table S4.7	Six-monthly	26/0705

List 1 Screen

Table S5.2: Annual production/treatment

Leachate: Disposed of off site; Disposed of to any onsite effluent treatment plant; Recirculated into the waste mass.	Cubic metres/year
Surface water and/ or groundwater: Disposed of off site; Disposed of to any onsite effluent treatment plant.	Cubic metres/year
Landfill gas: combustion in flares; combustion in gas engines; Other methods of gas utilisation.	Normalised cubic metres/year

Table S5.3 Performance Parameters

Parameter	Frequency of assessment	Annual total	Unit
Potable water use	Annually		Cubic metres
Energy used (including for leachate treatment)	Annually		MWh of electricity
Non potable water use	Annually		Cubic metres

Table S5.4 Reporting Forms

Media/parameter	Reporting Format	Date of Form
Leachate	Form leachate 1 or other reporting format to be agreed in writing with the Agency	
Air	Form Air 1 or other reporting format to be agreed in writing with the Agency	
Controlled water	Form Water 1 or other reporting format to be agreed in writing with the Agency	
Groundwater	Form Groundwater 1 or other reporting format to be agreed in writing with the Agency	
Landfill gas	Form LFG 1 or other reporting format to be agreed in writing with the Agency	
Waste Return	Waste Return Form RATS2E	
Landfill topographical surveys and interpretation	Reporting format to be agreed in writing with the Agency	

Schedule 6 - 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 PPC Regulations.

Part A

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

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or fugitive emission which has caused, is causing or may cause significant pollution

To be notified within 24 hours of detection

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

(b) Notification requirements for the breach of a limit

To be notified within 24 hours of detection unless otherwise specified below

Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

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

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

Part B to be supplied as soon as practicable

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

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of JLA Disposal Limited

Schedule 7 - 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 4 to the PPC Regulations

"Authorised Officer" means any person authorised by the 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 New Cell or Landfill Infrastructure.

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

- The results of all testing required by the CQA programme - this must include the records of any failed tests with a written explanation, details of the remedial action taken, referenced to the appropriate secondary testing;
- Plans showing the location of all tests;
- "As-built" plans and sections of the works;
- Copies of the site engineer's daily records;
- Records of any problems or non-compliances and the solution applied;
- Any other site specific information considered relevant to proving the integrity of the New Cell or Landfill Infrastructure;
- Validation by a qualified person that all of the construction has been carried out in accordance with the Construction Proposals.

"Fugitive emission" means an emission to air, water or land from the activities which is not controlled by an emission or background concentration limit.

"Groundwater Regulations" means the Groundwater Regulations SI 1998 No. 2746, and words and expressions used in this permit which are also used in the Regulations shall have the same meanings as in those Regulations.

"Landfill Infrastructure" means any specified element of the:

- permanent capping;
- temporary capping (i.e. engineered temporary caps not cover materials);
- leachate abstraction systems;
- leachate transfer, treatment and storage systems;
- surface water drainage systems;
- leachate monitoring wells;
- groundwater monitoring boreholes;
- landfill gas monitoring boreholes;
- landfill gas management systems;

within the site.

"Landfill Regulations" means the Landfill (England and Wales) Regulations SI 2002 No. 1559, and words and expressions used in this permit which are also used in the Regulations shall have the same meanings as in those Regulations.

"Land Protection Guidance" means Agency guidance "H7 - Guidance on the protection of land under the PPC Regime: Application site report and site protection monitoring programme".

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

"LFTGN 05" means Environment Agency Guidance for monitoring enclosed landfill gas flares, September 2004.

"LFTGN 08" means Environment Agency Guidance for monitoring landfill gas engines, September 2004.

"New Cell" means any new cell, part of a cell or other similar new area of the site where waste deposit is to commence after issue of this permit and can comprise:

- groundwater under-drainage system;
- permanent geophysical leak location system;
- leak detection layer;

- sub-grade;
- barriers;
- liners;
- leachate collection system;
- leachate abstraction system;
- separation bund/layer;
- cell or area surface water drainage system;
- side wall subgrade and containment systems;

for the New Cell.

"No impact" means that the change made to the construction process will not alter the agreed design criteria, specification or performance.

"notify without delay" and "notified without delay" means that a telephone call can be used, whereas all other reports and notifications must be supplied in writing, either electronically or on paper.

"PPC Regulations" means the Pollution, Prevention and Control (England and Wales) Regulations SI 2000 No.1973 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

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

"Relevant person" and "relevant conviction" shall have the meanings given to them in the Environmental Protection Act 1990

"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 Groundwater 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 Groundwater Regulations

"Site Protection and Monitoring Programme" means a document which meets the requirements for Site Protection and Monitoring Programmes described in the Land Protection Guidance.

"Technically competent management" and "technical competence" shall have the meanings given to them in the Environmental Protection Act 1990.

"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, List of Wastes (Northern Ireland) Regulations 2005 (as amended), or The Special Waste Amendment (Scotland) Regulations 2004 as appropriate, and in relation to hazardous waste, includes the asterisk

"Year" means calendar year ending 31 December.

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

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

END OF PERMIT