



Template Permit for the Landfill Sector

## Permit with introductory note

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

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

Permit number

**BT1908IX**

### Contents

Introductory note .....	ii
<b>Permit .....</b>	<b>1</b>
<b>Conditions.....</b>	<b>1</b>
1. General .....	1
2. Operating conditions .....	4
3. Records .....	18
4. Reporting .....	19
5. Notifications .....	20
6. Interpretation.....	21
Schedule 1 - Notification of abnormal emissions.....	23
Schedule 2 - Reporting of monitoring data .....	25
Schedule 3 - Forms to be used .....	<b>Error! Bookmark not defined.</b>
Schedule 4 - Reporting of performance data.....	27
Schedule 5 - Site Plan.....	28
Schedule 6 - List of Permitted Wastes.....	29

# Introductory note

## ***This introductory note does not form a part of the Permit***

The following Permit is issued under Regulation 6 of the Landfill (England and Wales) Regulations 2002 (S.I.2002 No.1559) ("the Landfill Regulations") and Regulation 10 of the Pollution Prevention and Control (England and Wales) Regulations 2000 (S.I.2000 No.1973), as amended, ("the PPC Regulations") to operate an installation carrying out the activities covered by the description in Section 5.2 A(1)(a) in Part 1 to Schedule 1 of the PPC Regulations, to the extent authorised by the Permit: i.e.

The disposal of waste in a landfill receiving more than 10 tonnes of waste in any day or with a total capacity of more than 25,000 tonnes, excluding disposals in landfills taking only inert waste.

There may be some activities on the installation to which BAT applies because they are not Landfill activities. Therefore, in some sections of the Permit conditions require the Operator to use Best Available Techniques (BAT), in each of the aspects of the management of the installation, to prevent and where that is not practicable to reduce emissions. The conditions do not explain what BAT is. In determining BAT, the Operator should pay particular attention to the appropriate Horizontal guidance and other relevant guidance.

A non-technical description of the installation is given in the Application, the main features of which, 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.

Other PPC Permits relating to this installation		
Permit holder	Permit Number	Date of Issue
Not applicable		

Superseded Licences/Authorisations/Consents relating to this installation		
Holder	Reference Number	Date of Issue
Not applicable		

Other non-PPC activities may take place on the site of this installation which are not regulated under this Permit or any other PPC Permit.

Other existing Licences/Authorisations/Registrations relating to this site		
Holder	Reference Number	Date of issue
Not applicable		

## Public Registers

Considerable information relating to Permits including the Application is available on Public Registers in accordance with the requirements of the PPC Regulations. Certain information may be withheld from Public Registers where it is commercially confidential or contrary to national security.

## Variations to the Permit

This Permit may be varied in the future (by the Agency serving a Variation Notice on the Operator). If the Operator itself wants any of the Conditions of the Permit to be changed, it must submit a formal Application. The Status Log within the Introductory Note to any such Variation Notice will include summary details of this Permit, variations issued up to that point in time and state whether a consolidated version of the Permit has been issued.

## Surrender of the Permit

Before this Permit can be wholly or partially surrendered, an Application to surrender the Permit has to be made by the Operator. For the application to be successful, the Operator must be able to demonstrate to the Agency that there is no pollution risk and that no further steps are required to return the site to a satisfactory state.

## Transfer of the Permit or part of the Permit

Before the Permit can be wholly or partially transferred to another person, an Application to transfer the Permit has to be made jointly by the existing and proposed holders. A transfer will be allowed unless the Agency considers that the proposed holder will not be the person who will have control over the operation of the installation or will not comply with the conditions of the transferred Permit. As the Permit authorises the carrying out of a specified waste management activity, the transfer will only be allowed if the proposed holder is also considered to be "a fit and proper person" as required by the PPC Regulations.

## Talking to us

Please quote the Permit Number if you contact the Agency about this Permit.

To give a Notification under condition 5.1.1, the Operator should use the Incident Hotline telephone number (0800 80 70 60) or any other number notified in writing to the Operator by the Agency for that purpose.

### Status Log

Detail	Dates	
Application <i>BT1908IX</i>	Received <i>05/10/04</i>	Response <i>18/10/04</i>
<i>Request to extend determination</i>	<i>Requests dated 18/05/05 and 06/07/05</i>	<i>Responses dated 31/05/05 and 08/07/05</i>
<i>Permit determined</i>	<i>26/07/05</i>	

End of Introductory Note.

## Permit

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



**ENVIRONMENT  
AGENCY**

## Permit

Permit number

**BT1908IX**

The Environment Agency (the Agency) in exercise of its powers under Regulation 10 of the Pollution Prevention and Control (England and Wales) Regulations 2000 (SI 2000 No 1973), and Regulation 6 of the Landfill (England and Wales) Regulations 2002 (SI 2002 No.1559) hereby authorises

**JLA Disposal Limited** ("the Operator"),

Of/ whose Registered Office (or principal place of business) 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 authorised by and subject to the conditions of this Permit.

The landfill authorised by this Permit is for the disposal of non-hazardous waste

Signed

Date

Handwritten signature of Emily Finney.	Handwritten date 26 July 2005.
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**Emily Finney – Strategic Permitting Group Team Leader, Aust, Bristol**

Authorised to sign on behalf of the Agency



# Conditions

## 1. General

### 1.1 Permitted Activities

- 1.1.1 The Operator is authorised to carry out the activity and the directly associated activities in Table 1.1.1

**Table 1.1.1**

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 non-hazardous wastes, consisting of the types and quantities specified in condition 2.1.2, as an integral part of landfilling.
<b>Associated Activity</b>		
Leachate Management	Storage and treatment of leachate in a facility with a capacity of <50 t/day	Leachate arising from the Permitted landfill
Landfill gas management	Flaring of landfill gas	Landfill gas arising from the Permitted landfill
Water discharges to controlled waters	Discharge of site drainage from the landfill	From surface water management system to point of entry to controlled waters.

- 1.1.2. Where waste on site is subjected to activities that are not subject to the Permit but are controlled under the Waste Management Licensing Regulations 1994, then the areas of the installation on which these activities take place shall be clearly identified and such waste shall be kept separate from the waste activities authorised by this Permit. A record shall be kept of where such activities are conducted.

### 1.2 Site

- 1.2.1 The activities authorised under condition 1.1.1 shall not extend beyond the Site, being the land shown edged in blue on Drawing number 249 Figure 2 at Schedule 5 to this Permit.

### 1.3 Overarching Management Condition

- 1.3.1 Without prejudice to the other conditions of this Permit, the Operator shall implement and maintain a written management system and organisational structure and allocate resources that are sufficient to achieve compliance with the limits and conditions of this Permit.

## 1.4 Improvement Programme

- 1.4.1. The Operator shall complete the improvements specified in Table 1.4.1 by the dates specified in that Table and shall send written notification of the date of completion of each such requirement to the Agency or within 14 days of the completion of each such requirement.

Table 1.4.1: Improvement programme requirements		
Reference	Requirement	Date
1a	Submit detailed proposals for storage, treatment and disposal of leachate (including a construction specification and method statement for the operation and maintenance of a leachate treatment plant) for approval by the Agency.	By 26/10/05
1b	Establish and maintain arrangements for storage, treatment and disposal of leachate as approved by the Agency in writing.	By 26/04/06
2	Introduce routine six monthly analysis for a representative range of List 1 substances including cadmium, mercury, mecoprop, phenol and toluene in respect of groundwater and leachate monitoring.	Prior to tipping of wastes for disposal
3	Review and establish location-specific groundwater trigger levels for each determinand at down gradient groundwater monitoring boreholes. Once established, the Permit will be read as if it contained these figures as appropriate.	By 27/01/07

- 1.4.2. Where the Operator fails to comply with any requirement by the date specified in Table 1.4.1 it shall send written notification of any such failure to the Agency within 14 days of such date.

## 1.5 Minor Operational Changes

- 1.5.1 The Operator shall seek the Agency's written agreement to any minor operational changes under condition 2.1.1 of this Permit by sending to the Agency: written notice of the details of the proposed change including an assessment of its possible adverse environmental effects (including waste production) ; any relevant supporting assessments and drawings; and the proposed implementation date.
- 1.5.2 Any such change shall not be implemented until agreed in writing by the Agency. As from the agreed implementation date, the Operator shall operate the Permitted Installation in accordance with that change, and the relevant provisions in the Application shall be deemed to be amended.
- 1.5.3 When the qualification "unless otherwise agreed in writing" is used elsewhere in this Permit, the Operator shall seek such agreement by sending to the Agency written notice of the details of the proposed method(s) or techniques.



- 1.5.4 Any such method(s) or techniques shall not be implemented until agreed in writing by the Agency. As from the agreed implementation date, the Operator shall operate the Permitted Installation using that method or technique and relevant provisions in the Application shall be deemed to be amended.

## 1.6 Pre-Operational Conditions

- 1.6.1 No disposal of wastes shall take place in any part of the Permitted Installation identified for *non hazardous waste* where waste deposit commences after the issue of this Permit unless:
- 1.6.1.1 at least 4 weeks prior to the commencement of construction of that part the Operator has submitted to the Agency in writing the detailed design, material specifications and the construction quality assurance (CQA) programme for the pre-operational engineering of the:
- *Barriers;*
  - *Liners;*
  - *Leachate collection layer;*
  - *Leachate abstraction system;*
  - *Landfill gas extraction and management systems;*
  - *Separation bund(s);*
  - *Leachate collection pipework (including drainage arrangements between subcells);*
  - *Surface water drainage system;*
  - *Capping and restoration layers;*
- for that part and that it is confirmed in writing by the Agency that they are conform with the relevant specifications set out in section 2 of Part B of the Application, any other specification agreed in writing by the Agency and any subsequent agreed change to the specification(s); and
- 1.6.1.2 the Operator has notified the Agency in writing of any changes in the detailed design, material specifications and the CQA programme that are to be made during the construction and, in advance of those changes being made, the Agency has agreed in writing that these are acceptable in relation to the relevant specifications set out in Part B of the Application any other specification agreed in writing by the Agency and any subsequent agreed changes under 1.6.1.1; and
- 1.6.1.3 the pre-operational engineering and infrastructure as listed in 1.6.1.1, has been completed and validated in accordance with the documented CQA procedures, and
- 1.6.1.4 the Operator has submitted the validation report in writing to the Agency; and
- 1.6.1.5 the Agency has inspected the relevant part to ensure that it complies with the relevant conditions of the Permit, and has confirmed in writing that it has no objection to that part becoming operational.

## 1.7 Off-site Conditions

- 1.7.1 There are no off-site conditions.

## 2. Operating conditions

### 2.1 Landfilling Controls

- 2.1.1 The Permitted Installation shall, subject to the conditions of this Permit, be operated using the techniques and in the manner described in the documentation specified in Table 2.1.1, or as otherwise agreed in writing by the Agency in accordance with conditions 1.5.1 and 1.5.2 of this Permit.

**Table 2.1.1: 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

- 2.1.2 Wastes shall only be accepted for disposal if they are listed in Schedule 6, all relevant waste acceptance procedures have been completed, and the waste is in the 'category or type' permitted in Table 2.1.2 on the following page;

<b>Table 2.1.2 : Wastes accepted for disposal</b>	
<b>Waste Category or Type</b>	<b>New Landfill</b>
	<b>Permitted or not Permitted</b>
Hazardous	Not Permitted
Non-hazardous	Permitted
Stable non-reactive hazardous	Not Permitted
Asbestos and construction materials containing asbestos	Not Permitted
Gypsum (and other high sulphate bearing waste)	Not Permitted
Inert	Permitted
Liquid wastes (including waste waters but excluding sludge).	Not permitted
Waste which in the conditions of landfill is explosive, corrosive, oxidising, highly flammable or flammable.	Not permitted
Hospital and other clinical infectious wastes from medical or veterinary establishments.	Not permitted
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.	Not permitted
Whole used tyres (other than tyres used as engineering materials, bicycle tyres and tyres with an outside diameter of more than 1400mm).	Not permitted
Shredded used tyres (other than bicycle tyres and tyres with an outside diameter of more than 1400mm).	Permitted until 16 <sup>th</sup> July 2006.
Any waste which does not fulfil the relevant waste acceptance criteria.	Not permitted
Waste which has been diluted or mixed solely to meet the relevant waste acceptance criteria.	Not permitted
Wastes which have not 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.	Not Permitted

And

- 2.1.2.1 The Operator of the landfill has visually inspected the waste at the entrance to the landfill and at the point of the deposit and has satisfied himself that it conforms with the description provided in the documentation submitted by the holder. Any waste which does not conform with the description provided, shall be refused and the Agency notified in accordance with condition 5.1.1

- 2.1.2.2 All waste approved under condition 2.1.2 shall be characterised in accordance with the Landfill Regulations to meet Waste Acceptance Criteria and Procedures. The Operator shall provide written confirmation to the Agency in the quarterly report required by condition 4.1.8, that such characterisation has been undertaken. Any information provided under this condition shall also be included within the annual report required by condition 4.1.3.
- 2.1.2.3 The Operator shall ensure that where representative samples are taken for analysis, they are taken in accordance with the Landfill Regulations, to meet Waste Acceptance Criteria and Procedures. The samples taken shall be retained for at least one month and results of any analysis, for at least one year.
- 2.1.3 The Operator on accepting each delivery of waste, shall provide a written receipt to the person delivering it.
- 2.1.4 The Operator shall ensure that the landfill is secured to prevent free access to the site and that the gates of the landfill are kept locked outside operating hours or when unattended.
- 2.1.5 The total quantity of waste that shall be deposited in the landfill shall not exceed 135,268 tonnes.
- 2.1.6 The quantity of waste that is deposited in the landfill in any year shall not exceed the limits in Table 2.1.3 below.

Table 2.1.3 Annual Waste Input Limits	
Category	Limit Tonnes/ Year
Non-hazardous Waste	} 24,999 in total
Inert Waste	
Inert Waste for restoration of closed areas	

- 2.1.7 The Operator shall maintain and implement a system which ensures that a record is kept of the quantity, characteristics, origin, date of delivery, the identity of the producer (or in the case of municipal waste (as defined by the Landfill Regulations), the collector) of any waste that is received for disposal or recovery at the Permitted Installation.

## 2.2 Emissions

### 2.2.1 Emissions to Air, (excluding Odour, Noise or Vibration) from Specified Points

- 2.2.1.1 Part 2.2.1 of this Permit shall not apply to releases of odour, noise or vibration.
- 2.2.1.2 Emissions to air from the emission points in Table 2.2.1 shall only arise from the source(s) specified in that Table.

**Table 2.2.1 : Air emission monitoring points**

Monitoring point reference or description	Source	Location of monitoring point
GA1 to GA6 in-waste monitoring points	Landfill waste mass	As shown on Drawing no 249 Figure 22
Landfill gas flare	Landfill waste mass	As agreed in writing with the Agency

2.2.1.3 The limits for emissions to air for the parameter(s) and monitoring point(s) set out in Table 2.2.2 shall not be exceeded.

**Table 2.2.2 : Emission limits to air and monitoring**

Emission point reference	Parameter	Limit	Monitoring frequency	Monitoring method
GA1 to GA6 in-waste monitoring points	Landfill gas volume	100 m <sup>3</sup> /hour (combined flow rate) then flaring	Quarterly	As agreed in writing with the Agency
Flare	Nitrogen Oxides (NO <sub>x</sub> )	150 mg/m <sup>3</sup>	Annually	Extractive sampling and Chemiluminescence
Flare	Carbon Monoxide (CO)	50 mg/m <sup>3</sup>	Annually	Extractive sampling and Non-dispersive infra red analysis
Flare	Total volatile organic compounds (VOCs)	10 mg/m <sup>3</sup>	Annually	Extractive sampling and FID analysis
Flare	Non methane volatile organic compounds (NMVOCs)	5 mg/m <sup>3</sup>	Annually	Extractive sampling onto sorbent, extraction by CS <sub>2</sub> , analysis by GC with appropriate detector

Note 1: See Section 6 for reference conditions

## 2.2.2 Emissions to water (other than groundwater), from specified points

2.2.2.1 This Part 2.2.2 of this Permit shall not apply to releases of odour, noise or vibration or to releases to groundwater.

### Emissions to Water (other than to Sewer)

2.2.2.2 Conditions 2.2.2.3 - 6 shall not apply to emissions to sewer.

2.2.2.3 Emissions to surface water from the emission point(s) specified in Table 2.2.4 shall only arise from the source(s) specified in that Table.

**Table 2.2.4: Emission point to surface water**

Emission Point Reference and/or location description	Source	Receiving Water
S1 as shown on Fig 22 monitoring Plan.	Site drainage from Polishing pond	Surface water ditch down gradient
S2 as shown on Fig 22 monitoring Plan.	Site drainage from Phases 1 and 2	Surface water ditch junction Phase 1 cut off
S3 as shown on Fig 22 monitoring Plan.	Site drainage from temporary settlement lagoon	Surface water ditch Phase 2
S4 as shown on Fig 22 monitoring Plan.	Site drainage from temporary settlement lagoon	Surface water ditch Phase 2

2.2.2.4 The limits for the emissions to surface water for the parameter(s) and emission point(s) set out in Table 2.2.5 shall not be exceeded.

**Table 2.2.5 : Emission limits to surface water and monitoring**

Emission point reference	Parameter	Limit	Monitoring frequency	Monitoring method
S1, S2, S3 and S4	Suspended Solids	75 mg/l	Monthly	As agreed in writing with the Agency
S1, S2, S3 and S4	pH	5.5 to 9.5	Monthly	As agreed in writing with the Agency
S1, S2, S3 and S4	Electrical Conductivity	800 uS/cm	Monthly	As agreed in writing with the Agency
S1, S2, S3 and S4	COD	600 mg/l	Monthly	As agreed in writing with the Agency
S1, S2, S3 and S4	Ammoniacal Nitrogen	0.75 mg/l	Monthly	As agreed in writing with the Agency
S1, S2, S3 and S4	Chloride	100 mg/l	Monthly	As agreed in writing with the Agency

2.2.2.5 No condition applies.

2.2.2.6 No condition applies.

## Emissions to sewer

2.2.2.7 No emission from the permitted installation shall be made to sewer.

2.2.2.8 No condition applies.

2.2.2.9 No condition applies.

## 2.2.3 Emissions to groundwater

2.2.3.1 No emission from the Permitted Installation shall give rise to the introduction into groundwater of any substance in List I (as defined in the Groundwater Regulations 1998 (S.I. 1998 No. 2746)).

2.2.3.2 No emission from within the Permitted Installation shall give rise to the introduction into groundwater of any substance in List II (as defined in the Groundwater Regulations 1998 (S.I. 1998 No. 2746)) so as to cause pollution (as defined in the Groundwater Regulations 1998 (S.I. 1998 No. 2746)).

- 2.2.3.3 For substances other than those in List I or II (as defined in the Groundwater Regulations 1998 (SI 1998 No.2746)), the Operator shall ensure that all appropriate measures are taken to prevent or where that is not practicable to reduce emissions to groundwater from the Permitted Installation provided always that the techniques used by the Operator shall be no less effective than those described in the Application.
- 2.2.3.4 The trigger levels for emissions into groundwater for the parameter(s) and monitoring point(s) set out in Table 2.2.8 shall not be exceeded.

**Table 2.2.8: Groundwater monitoring point trigger levels**

Emission point reference	Substance	Limit	Monitoring frequency	Monitoring method
Downstream Monitoring Points GW2, GW4 and GW7 as shown on Figure 22 Monitoring Plan	Ammoniacal Nitrogen	2.5 mg/l	Quarterly	As agreed in writing with the Agency
	Chloride	200 mg/l	Quarterly	As agreed in writing with the Agency
	Zinc	0.1 mg/l	Quarterly	As agreed in writing with the Agency
	Cadmium	0.005 mg/l	Six-monthly	As agreed in writing with the Agency
	Mercury	0.001 mg/l	Six-monthly	As agreed in writing with the Agency
	Mecoprop	0.0004 mg/l	Six-monthly	As agreed in writing with the Agency
	Phenols	0.0005 mg/l	Six-monthly	As agreed in writing with the Agency
	Toluene	0.0001 mg/l	Six-monthly	As agreed in writing with the Agency

- 2.2.3.5 Subject to the terms of this condition, the activities of disposal, or tipping for the purpose of disposal, of wastes that are authorised by this landfill Permit shall cease on 26/01/09, unless by that date, the Operator has submitted to the Agency, a written review of the Hydrogeological Risk Assessment submitted as part of the original Application for the Permit.
- 2.2.3.6 The Risk Assessment review shall include a review of the responses in Section 1.2.1 to 1.2.10 of Part B of that original application. The written review shall show whether at the specified date, the level of risk to groundwater meets the terms of the Groundwater Regulations 1998.

**Within six months of receipt of the written review, the Agency shall reply in writing to the Operator either confirming that the above requirements have been met and authorising continuation of disposal activities or, that the activities of disposal or tipping for the purpose of disposal of waste authorised by this Permit shall cease until the Operator can show that the level of risk to groundwater meets the terms of the Groundwater Regulations 1998.**

- 2.2.3.7 In the event that the continuation of activities is authorised in accordance with condition 2.2.3.6 beyond 4 years following the date of granting of this Permit, they shall cease on every fourth anniversary thereafter, *unless, by each of those dates, the Operator has submitted to the Agency a further written review of the Hydrogeological Risk Assessment which shows that, at the specified dates, the level of risk to groundwater meets the terms of the Groundwater Regulations.*

2.2.3.8 The reviews submitted to the Agency shall include:

Recommendations of the essential technical precautions which must be taken, paying particular attention to the nature and concentration of the substances present in the matter being disposed of or tipped, the characteristics of the receiving environment and the proximity of the water catchment areas, in particular those for drinking, thermal and mineral water;

- i In the case where groundwater is considered to be permanently unsuitable for other uses, to ensure that no substance in list I can reach other aquatic ecosystems or harm other ecosystems, to ensure that the presence of any list I substance once discharged into the groundwater will not impede exploitation of ground resources and to prevent pollution of groundwater by list II substances; and
- ii in the case where groundwater is not considered to be permanently unsuitable for other uses, to prevent any discharges into groundwater of substances in list I and to prevent any pollution of groundwater by substances in list II.



## **2.2.4 Fugitive emissions of substances to air**

- 2.2.4.1 The Operator shall ensure that all appropriate measures are taken to prevent or where that is not practicable, to reduce fugitive emissions of substances to air from the Permitted Installation in particular from:
- open surfaces, unfilled, operational and filled landfill surfaces;
  - storage areas;
  - buildings;
  - pipes, valves and other transfer systems;
- provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.
- 2.2.4.2 The Operator shall use all appropriate measures so as to prevent or where that is not practicable, to reduce emissions of landfill gas, litter and particulate matter from the Permitted Installation provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

## **2.2.5 Fugitive emissions of substances to water and sewer**

- 2.2.5.1 Subject to condition 2.2.5.2 below, the Operator shall ensure that all appropriate measures are taken to prevent or where that is not practicable, to reduce fugitive emissions of substances to water (other than Groundwater) and to sewer from the Permitted Installation in particular from:
- all structures under or over ground;
  - surfacing;
  - bunding;
  - storage areas;
- provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.
- 2.2.5.2 There shall be no release to water that would cause a breach of an EQS established by the UK Government to implement the Dangerous Substances Directive 76/464/EEC.

## **2.2.6 Odour**

- 2.2.6.1 The Operator shall ensure that all appropriate measures are taken to prevent or where that is not practicable, to reduce odorous emissions from the Permitted Installation, in particular by:
- controlling operational activities to minimise the generation of odour
  - limiting the use of odorous materials
  - restricting odorous activities
  - controlling the storage conditions of odorous materials
  - optimising the performance of abatement systems
  - timely monitoring, inspection and maintenance
  - employing, where appropriate, an approved odour management plan

provided always that the techniques used by the Operator shall be no less effective than those described in the Application, where relevant.

## 2.2.7 Emissions to Land

- 2.2.7.1 This Part 2.2.7 of this Permit shall not apply to emissions to groundwater.
- 2.2.7.2 No emission from the Permitted installation shall be made to land.
- 2.2.7.3 The Operator shall notify the Agency, as soon as reasonably practicable, of any information concerning the state of the site which affects or updates that provided to the Agency as part of the Site Report submitted with the application for this Permit.

## 2.3 Management and Fit and Proper Person

- 2.3.1 A copy of this Permit and those parts of the application referred to in this Permit shall be available, at all times, for reference by all staff carrying out work subject to the requirements of the Permit.

### **Training**

- 2.3.2 The Permitted Installation shall be supervised by staff who are suitably trained and fully conversant with the requirements of this Permit.
- 2.3.3 All staff shall be fully conversant with those aspects of the Permit conditions which are relevant to their duties and shall be provided with adequate professional technical development and training and written operating instructions to enable them to carry out their duties.
- 2.3.4 The Operator shall maintain a record of the skills and training requirements for all staff whose tasks in relation to the Permitted Installation may have an impact on the environment and shall keep records of all relevant training.

### **Maintenance**

- 2.3.5 All plant and equipment used in operating the Permitted Installation, the failure of which could lead to an adverse impact on the environment, shall be maintained in good operating condition.
- 2.3.6 The Operator shall maintain a record of relevant plant and equipment covered by condition 2.3.5 and for such plant and equipment:
  - 2.3.6.1 a written or electronic maintenance programme; and
  - 2.3.6.2 records of its maintenance.

### **Incidents and Complaints**

- 2.3.7 The Operator shall maintain and implement written procedures for:
  - 2.3.7.1 taking prompt remedial action, investigating and reporting actual or potential non-compliance with operating procedures or emission limits and if such event occur;
  - 2.3.7.2 investigating incidents, (including any malfunction, breakdown or failure of plant, equipment or techniques, downtime, any short term and long term remedial measures, near misses); and
  - 2.3.7.3 ensuring that detailed records are made of all such actions and investigations.
- 2.3.8 The Operator shall record and investigate complaints concerning the Permitted Installation's effects or alleged effects on the environment. The record shall give the date and nature of complaint, time of complaint, name of complainant (if given), a summary of any investigation and the results of such investigation and any actions taken.

### ***Fit and Proper Person***

- 2.3.9 Where Regulation 4 of the Regulations applies to a relevant activity or associated activity carried on at the Permitted Installation, as authorised under condition 1.1.1:
- 2.3.9.1 Any changes in technically competent management and the name of any incoming person together with evidence that such person has the required technical competence shall be submitted to the Agency in writing within 5 working days of the change in management. Technically competent management and technical competence shall be as prescribed under Section 74 of the Environmental Protection Act 1990.
- 2.3.9.2 In the event of the Operator and/or any relevant person being convicted of any relevant offence and which is in addition to any already notified to the Agency, then full details shall be provided to the Agency within 14 days of conviction, whether or not the conviction is subsequently appealed. Such details shall include, in respect of each relevant person (as defined in section 74(7) of the Environmental Protection Act 1990 or any subsequent amendments to that section), the nature of the offence, the place and date of conviction, any sentence, and any fine or other penalty imposed; and
- 2.3.9.3 In the event that the Operator and/or any relevant person lodges an appeal against any such conviction, the Operator shall notify the Agency of this within 14 days of the lodging. The Operator shall notify the Agency of the results of that appeal, within 14 days of the appeal being decided; and
- 2.3.9.4 No activities authorised by this Permit shall be commenced until the Operator has secured a bond in compliance with the Agreement made between the Operator and the Agency dated 26 July 2005, and the Operator has given prior written notice to the Agency of the intention to commence operations at the site.
- 2.3.9.5 The financial provision for meeting the obligations under this Permit set out in the Agreement referred to in the previous paragraph shall be maintained by the Operator from the date that the bond was created throughout the subsistence of this Permit, and the Operator shall produce evidence of such provision whenever required by the Agency.
- 2.3.10 The Operator shall ensure that the charges it makes for the disposal of waste in the landfill covers all of the following:
- (a) the costs of setting up and operating the landfill;
  - (b) the costs of the financial provision required by condition 2.3.9.4; and
  - (c) the estimated costs for the closure and after-care of the landfill site for a period of at least 60 years from its closure.

## **2.4 Efficient use of raw materials**

- 2.4.1 The Operator shall:
- 2.4.1.1 maintain the raw materials table or description submitted in response to Section 2.4 of the Application and in particular, consider on a periodic basis whether there are suitable alternative materials to reduce environmental impact;
- 2.4.1.2 carry out periodic waste minimisation audits and water use efficiency audits. If such an audit has not been carried out in the 2 years prior to the issue of this Permit, then the first such audit shall take place within 2 years of its issue. The methodology used and an action plan for increasing the efficiency of the use of raw materials or water shall be submitted to the Agency within 2 months of completion of each such audit and a review of the audit and a description of progress made against the action plan shall be submitted to the Agency at least every 4 years thereafter; and
- 2.4.1.3 ensure that incoming water use is directly measured and recorded.

## **2.5 Waste Storage and Handling**

- 2.5.1 No condition applies.

## **2.6 Waste recovery or disposal**

- 2.6.1 Waste produced at the Permitted Installation shall be recycled or recovered unless technically and/or economically impossible.
- 2.6.2 No condition applies.
- 2.6.3 The Operator shall maintain and implement a system which ensures that a record is made of the quantity, composition, origin, destination (including whether this is a recovery or disposal operation) and where relevant removal date of any waste that is produced at the Permitted Installation.

## **2.7 Energy Efficiency**

- 2.7.1 The Operator shall produce a report on the energy consumed at the Permitted Installation over the previous calendar year, by 31 January each year, providing the information listed in Table S4.2 at Schedule 4.
- 2.7.2 The Operator shall maintain and update annually an energy management system which shall include, in particular, the monitoring of energy flows and targeting of areas for improving energy efficiency.
- 2.7.3 The Operator shall design, maintain and operate the Permitted Installation so as to secure energy efficiency, taking into account relevant guidance including the Agency's Energy Efficiency Horizontal Guidance Notes as from time to time amended. Energy efficiency shall be secured in particular by:
- ensuring that the appropriate operating and maintenance systems are in place;
  - ensuring that all plant is adequately insulated to minimise energy loss or gain;
  - ensuring that all appropriate containment methods, (e.g. seals and self-closing doors) are employed and maintained to minimise energy loss;
  - ensuring employing appropriate basic controls, such as simple sensors and timers, to avoid unnecessary discharge of heated water or air;
  - where building services constitute more than 5% of the total energy consumption of the installation, identifying and employing the appropriate energy efficiency techniques for building services, having regard in particular to the Building services part of the Agency's Energy Efficiency Horizontal Guidance Notes; and
  - maintaining and implementing an energy efficiency plan which identifies energy saving techniques that are applicable to the activities and their associated environmental benefit and prioritises them, having regard to the appraisal method in the Agency's Energy Efficiency Horizontal Guidance Notes.

## **2.8 Accident prevention and control**

- 2.8.1 The Operator shall maintain and implement when necessary the accident management plan submitted or described in response to Section 2.3.4 of the Application. The plan shall be reviewed at least every 2 years or as soon as practicable after an accident, whichever is the earlier, and the Agency notified of the results of the review within 2 months of its completion.

## 2.9 Noise and Vibration

- 2.9.1 The Permitted Installation shall be designed, operated and maintained so as to avoid reasonable cause for annoyance from noise or vibration, in particular by:
- equipment maintenance e.g. fans, pumps, motors, conveyors and mobile plant;
  - use and maintenance of appropriate attenuation e.g. silencers, barriers, enclosures;
  - timing and location of noisy activities and vehicle movements;
  - periodic checking of noise emissions, either qualitatively or quantitatively; and
  - maintenance of building fabric.

Provided always that the techniques used by the Operator shall be no less effective than those described in the application, where relevant.

## 2.10 On-Site Monitoring

- 2.10.1 The Operator shall maintain and implement an emissions monitoring programme which ensures that emissions are monitored from the specified points, for the parameters listed in and to the frequencies and methods described in Tables 2.2.2 (air), 2.2.5 (water) and 2.2.8 (groundwater) unless otherwise agreed in writing, and that the results of such monitoring are assessed. The programme shall ensure that monitoring is carried out under an appropriate range of conditions.
- 2.10.2 No condition applies.
- 2.10.3 No condition applies.
- 2.10.4 No condition applies.

### **Monitoring - General**

- 2.10.5 The Operator shall notify the Agency at least 14 days in advance of undertaking monitoring and/ or spot sampling, where such notification has been requested in writing by the Agency.
- 2.10.6 The Operator shall maintain records of all monitoring taken or carried out (this includes 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.
- 2.10.7 No condition applies.
- 2.10.8 There shall be provided:
- 2.10.8.1 safe means of access to enable sampling/monitoring to be carried out in relation to the emission points specified in Schedule 2 to this Permit, when required by the Agency unless otherwise specified in that Schedule; and
- 2.10.8.2 safe means of access to other sampling/monitoring points when required by the Agency.
- 2.10.9 No condition applies.
- 2.10.10 No condition applies.

### **Landfill Gas**

- 2.10.11 The Operator shall carry out monitoring of the parameters listed in Table 2.10.11 at the specified monitoring points and at least at the frequencies specified in that Table. The trigger levels set out in Table 2.10.11 shall not be exceeded.

**Table 2.10.11 Landfill gas trigger levels**

Monitoring point reference/description	Parameter	Trigger	Frequency
Peripheral landfill gas monitoring boreholes GA7 to GA10	Methane	1.0% vol in air	Monthly
Peripheral landfill gas monitoring boreholes GA7 to GA10	Carbon dioxide	1.5% vol in air	Monthly

**Leachate**

- 2.10.12 The leachate levels within the installation shall be monitored at monthly intervals at the locations identified in Table 2.10.12. The head of leachate shall not be permitted to exceed 1.5 metres above the base of the abstraction sump (L1), and 1.0 metres above the basal lining (L2 to L6.)
- 2.10.13 The leachate quality shall be assessed six monthly in accordance with LFTGN02 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water' or as otherwise agreed by the Agency for a representative range of List 1 and List 2 substances. The control levels in Table 2.10.12 shall apply.

**Table 2.10.12 Leachate monitoring - control levels**

Substance	Control level - mg/l	Compliance Points
Ammonia	780	L1 to L6 as shown on Drawing No 249 Figure 22
Chloride	3200	L1 to L6 as shown on Drawing No 249 Figure 22

\*Note 1: Additional determinands may also be used to monitor leachate quality; monitoring and frequency to be agreed in writing with the Agency.

**2.11 Closure, Aftercare and Decommissioning**

- 2.11.1 The Permitted Installation shall, subject to the conditions of this Permit, be managed and controlled as described in the documentation specified in Table 2.11.1, or as otherwise agreed in writing by the Agency.

**Table 2.11.1: Closure, Aftercare and Decommissioning techniques**

Description	Parts	Date Received
Application	The response to questions 2.11 in Part B of the application form and Report No 249.1 section 10	05 October 2004

- 2.11.2 Where the above Table refers to the whole or parts of different documents, in the event of any conflict between the wording of such documents, the wording of the later document(s) shall prevail to the extent of such conflict.
- 2.11.3 No condition applies.
- 2.11.4 Notwithstanding condition 2.11.1 of this Permit, the Operator shall carry out a full review of the Site Closure Plan at least every 4 years.
- 2.11.5 The Operator shall implement the Site Closure Plan on receipt of a notice from the Agency approving definitive closure of the landfill or part thereof.
- 2.11.6 The Operator shall give at least 30 days written notice to the Agency before implementing the site closure plan in respect of any non-landfill activities.

## **2.12 Multiple Operator installations**

2.12.1 Palleg Phase 2 is not a multi-Operator landfill installation.

## **2.13 Transfer to effluent treatment plant**

2.13.1 No transfers to effluent treatment plant are controlled under this part of this Permit.

### 3 Records

- 3.1.1 The Operator shall ensure that all records required to be made by this Permit and any other records made by it in relation to the operation of the Permitted Installation shall:
- be made available for inspection by the Agency at any reasonable time
  - be supplied to the Agency on demand and without charge
  - be legible
  - be made as soon as reasonably practicable
  - indicate any amendments which have been made and shall include the original record wherever possible; and
  - be retained at the Permitted Installation, or other location agreed by the Agency in writing, for a minimum period of 4 years from the date when the records were made, unless otherwise agreed in writing.



## 4 Reporting

- 4.1.1 All reports and written and or oral notifications required by this Permit and notifications required by Regulation 16 of the PPC Regulations shall be made or sent to the Agency using the contact details notified in writing to the Operator by the Agency.
- 4.1.2 The Operator shall, unless otherwise agreed in writing, submit reports of the monitoring and assessment carried out, as follows:
- in respect of the parameters and emission and monitoring points specified in Schedule 2;
  - for the reporting periods specified in Schedule 2 and using the forms specified in Table S3 to Schedule 3;
  - giving the information from such results and assessments as may be required by the forms specified in those Tables; and
  - to the Agency within 28 days of the end of the reporting period.
- 4.1.3 The Operator shall submit to the Agency a report on the performance of the Permitted Installation over the previous year, by 31 January each year, providing the information listed in Tables S4.1-2 of Schedule 4, assessed at any frequency specified therein.
- 4.1.4 The Operator shall review fugitive emissions, having regard to the application of the most appropriate measures to prevent pollution, on an annual basis, or such other period as shall be agreed in writing by the Agency, and a summary report on this review shall be sent to the Agency detailing such releases and the measures taken to reduce them within 3 months of the end of such period.
- 4.1.5 Where the Operator has a formal environmental management system applying to the Permitted Installation which encompasses annual improvement targets the Operator shall, not later than 31 January in each year, provide a summary report of the previous year's progress against such targets.
- 4.1.6 The Operator shall, within 6 months of receipt of written notice from the Agency, submit to the Agency a report assessing whether all appropriate preventive measures continue to be taken against pollution at the installation. The report shall consider any relevant published technical guidance current at the time of the notice which is either supplied with or referred to in the notice, and shall assess the costs and benefits of applying techniques described in that guidance, or otherwise identified by the Operator, that may provide environmental improvement.
- 4.1.7 No condition applies.
- 4.1.8 The Operator shall review the monitoring results for waste characterisation, landfill gas, leachate, surface and groundwater against the relevant emission limits, assessment limits, control and trigger levels specified in the Permit on a three monthly basis and shall submit a summary report of this review, to the Agency within one month of the end of each three month period.
- 4.1.9 The Operator shall review all monitoring data required by this Permit on an annual basis and shall submit a summary report to the Agency within three months of the end of each year.
- 4.1.10 The Operator shall submit to the Agency a report setting out the types and quantities of waste disposed of at the landfill on a three monthly basis i.e. for the periods 1 April - 30 June; 1 July - 30 September; 1 October - 31 December and 1 January - 31 March, such report to be received within 1 month from the end of each period.

## 5 Notifications

- 5.1.1 The Operator shall notify the Agency **without delay** of:
- 5.1.1.1 the detection of an emission of any pollutant which exceeds any limit or criterion in this Permit specified in relation to the pollutant;
  - 5.1.1.2 the detection of any fugitive emission which has caused, is causing or may cause significant pollution; unless the quantity emitted is so trivial that it would be incapable of causing significant adverse environmental effect;
  - 5.1.1.3 the detection of any malfunction, breakdown or failure of plant or techniques which has caused, is causing or has the potential to cause significant pollution;
  - 5.1.1.4 any accident which has caused, is causing or has the potential to cause significant pollution;
  - 5.1.1.5 the refusal to accept or rejection of incoming waste at the landfill, and
  - 5.1.1.6 the detection of any significant adverse environmental effects.
- 5.1.2 The Operator shall submit written confirmation to the Agency of any notification under condition 5.1.1, by sending:
- 5.1.2.1 information listed in Part A of Schedule 1 to this Permit within 24 hours of such notification; and
  - 5.1.2.2 the more detailed information listed in Part B or Part C of that Schedule as soon as practicable thereafter; and such information shall be in accordance with that Schedule.
- 5.1.3 The Operator shall give prior written notification to the Agency of the following events and in the specified timescales:
- 5.1.3.1 as soon as practicable prior to the permanent cessation of the landfill disposal operations;
  - 5.1.3.2 as soon as practicable prior to the cessation of the operation of the landfill disposal operations, for a period likely to exceed 1 month;
  - 5.1.3.3 at least 14 days prior to the resumption of the landfill disposal operations after a cessation.
- 5.1.4 The Operator shall notify the Agency, as soon as practicable, of any information concerning the state of the site which affects or updates that provided to the Agency as part of the Site Report submitted with the application for this Permit.
- 5.1.5 The Operator shall notify the following matters to the Agency in writing within 14 days of their occurrence:
- 5.1.5.1 where the Operator is a registered company:
    - any change in the Operator's trading name, registered name or registered office address;
    - 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)
    - any steps taken with a view to the Operator going into administration, entering into a company voluntary arrangement or being wound up;
  - 5.1.5.2 where the Operator is a corporate body other than a registered company:
    - any change in the Operator's name or address;
    - any steps taken with a view to the dissolution of the Operator.
  - 5.1.5.3 In any other case:
    - the death of any of the named Operators (where the Operator consists of more than one named individual);
    - any change in the Operator's name(s) or address(es);
    - 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 them being in a partnership, dissolving the partnership.

## 6 Interpretation

6.1.1 In this Permit, the following expressions shall have the following meanings:

*"Application"* means the application for this Permit, together with any response to a notice served under Schedule 4 to the PPC Regulations and any operational change agreed under the conditions of this Permit.

*"background concentration"* means such concentration of that substance as is present in:

- water supplied to the site; or
- where more than 50% of the water used at the site is directly abstracted from ground or surface water on site, the abstracted water; or
- where the Permitted Installation uses no significant amount of supplied or abstracted water, the precipitation onto the site, or
- groundwater quality up-gradient of the installation
- surface water quality up-gradient of the site

*"BAT" means best available techniques means the most effective and advanced stage of development of activities and their methods of operation which indicates the practical suitability of particular techniques to prevent and where that is not practicable to reduce emissions and the impact on the environment as a whole. For these purposes: "available techniques" means "those techniques which have been developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the cost and advantages, whether or not the techniques are used or produced inside the United Kingdom, as long as they are reasonably accessible to the operator"; "best" means "in relation to techniques, the most effective in achieving a high general level of protection of the environment as a whole" and "techniques" "includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned." . In addition, Schedule 2 of the PPC Regulations has effect in relation to the determination of BAT.*

*"Characterisation" as set out in Schedule 1 para 5(5) of the of the Landfill (E&W) Regulations 2002 (SI:2002, No 1559) (as amended) and means gathering all necessary information for the safe disposal of the waste in the long term. The information required is at least that given in Schedule 1 para 5(1) and 5(2) of the 2002 Regulations. Samples of waste to be characterised must be obtained using a sampling plan in accordance with PrEN 14899 and Agency Guidance on the Sampling and Testing of Wastes to meet Waste Acceptance Procedures*

*"Fugitive emission"* means an emission to air or water (including sewer) from the Permitted Installation which is not controlled by an emission or background concentration limit under conditions 2.2.1.3, 2.2.2.4, 2.2.2.5, 2.2.2.8 or 2.2.2.9 of this Permit"

*"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.

*"Interim Hazardous"* means a landfill classified as hazardous until 16<sup>th</sup> July 2004

*"The Landfill Regulations"* means the Landfill (England and Wales) Regulations SI 2002 No. 1559, as amended by SI 2004 No 1375 and words and expressions defined in the Landfill Regulations shall have the same meanings when used in this Permit, save to the extent that they are specifically defined in this Permit. It shall include future amendments or superseding legislation

*"Monitoring"* includes the taking and analysis of samples, instrumental measurements (periodic and continual), calibrations, examinations, tests and surveys.

*"Permitted Installation"* means the activities and the limits to those activities described in Table 1.1.1 of this Permit.

*"PPC Regulations"* means the Pollution, Prevention and Control (England and Wales) Regulations SI 2000 No.1973 (as amended) and words and expressions defined in the PPC Regulations shall have the same meanings when used in this Permit save to the extent they are specifically defined in Permit Ref BT1908IX

this Permit. It shall include any future amendments or superseding legislation

*"Range of conditions" refers to environmental conditions, such that monitoring for example, for landfill gas is undertaken at a variety of atmospheric pressures (including when it is falling), water monitoring is undertaken in low and high flow conditions and at different times of the year, etc...*

*"Sewer" means sewer within the meaning of section 219(1) of the Water Industry Act 1991.*

*"Staff" includes employees, directors or other officers of the Operator, and any other person under the Operator's direct or indirect control, including contractors.*

*"Year" means calendar year ending 31 December.*

- 6.1.2 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.
- 6.1.3 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 or Guidance for Monitoring Landfill Gas Engine Emissions.
- 6.1.4 Where any condition of this Permit refers to the whole or parts of different documents, in the event of any conflict between the wording of such documents, the wording of the document(s) with the most recent date shall prevail to the extent of such conflict.

# Schedule 1 - Notification of abnormal emissions and significant adverse environmental effects

This page outlines the information that the Operator must provide to satisfy conditions 5.1.1 and 5.1.2 of this Permit.

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.

Part C refers specifically to the requirement to notify the Agency of any significant environmental effect as required by the Landfill Regulations and should be used instead of Part B to report such to the Agency.

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	
Location of the emission/ significant adverse environmental effect	
Time and date of the emission/ significant adverse environmental effect	

Substance[s] emitted	Media	Best estimate of the quantity or the rate of emission	time during which the emission took place
	e.g. air		
	e.g. groundwater		

Measures taken, or intended to be taken, to stop the emission	
--	--

## Part B

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 or harm which has been or may be caused by the emission	
The dates of any unauthorised emissions from the installation in the preceding 24 months.	

<b>Name*</b>	
<b>Post</b>	
<b>Signature</b>	
<b>Date</b>	

\* authorised to sign on behalf of JLA Disposal Limited

## PART C

Nature of significant adverse environmental effect (e.g. Groundwater Pollution, LFG escape)	
Immediate measures taken to prevent further effects from this source	
Further measures taken , or intended to be taken, to rectify, limit or prevent any pollution of the environment or harm which has been or may be caused by the significant adverse environmental effect	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	

<b>Name*</b>	
<b>Post</b>	
<b>Signature</b>	
<b>Date</b>	

\* authorised to sign on behalf of JLA Disposal Limited

## Schedule 2 - Reporting of monitoring data

Parameters, for which reports shall be made, in accordance with conditions 4.1.2 and 4.1.3 of this Permit, are listed below.

<b>Table S2: Reporting of monitoring data</b>			
<b>Parameter</b>	<b>Emission point</b>	<b>Reporting period</b>	<b>Period begins</b>
<u>Emissions to Air</u> As specified in table 2.2.2	As specified in table 2.2.2	Quarterly	From the date of issue of this permit
<u>Surface Water</u> Parameters specified by table 2.2.5	As specified in table 2.2.5	Quarterly	From the date of issue of this permit
<u>Groundwater</u> Parameters specified table 2.2.8	As specified in tables 2.2.8	Quarterly and six-monthly	From the date of issue of this permit
<u>Landfill Gas</u> As specified in table 2.10.11	As specified in Table 2.10.11	Quarterly	From the date of issue of this permit
<u>Leachate</u> As specified in condition 2.10.12	As specified in condition 2.10.13	Six-monthly	From the date of issue of this permit
Waste Summary	As specified in condition 2.1.5	Annually	From the date of issue of this permit

### **Annually**

Calculation of remaining capacity in cubic metres accounting for settlement  
Record of the structure and composition of the landfill body  
Surveying of the settling behaviour of the landfill during the operating and after care phases  
Volume and composition of waste deposited in the previous 12 months

### **Quarterly**

Quantity of waste deposited

### **Monthly**

Leachate levels as mAOD

1. Stable, permanent survey control stations shall be established and maintained for the control of all survey work around the site. The stations shall be referenced to Ordnance Survey National Grid co-ordinates, the grid alignment to be within +/-1 metre and levels referenced to Ordnance Datum. The accuracy of horizontal control shall not be less than 1:20 000. The level values of adjacent stations shall agree to less than or equal to 0.005 metres. No waste shall be accepted at the site until a schedule of descriptions, co-ordinates and level values of all control stations, together with details of Bench Marks used, has been submitted in writing to the Agency.
2. A topographic survey shall be carried out immediately before the start of filling of each phase or cell, at annual intervals (unless otherwise agreed in writing by the Agency), and at the completion of restoration. The scale shall adequately show surveyed features and be at least 1:1250. The surveys shall be sufficient to produce plans that include all roads, structures, boundaries, monitoring points and all other relevant site features. The results of the survey shall be presented as a plan, including the immediate neighbouring landform or an indication of that landform. Plan positions of ground features to be shown to within 1 metre. Spot levels to 0.01m shall be shown at significant landform changes to a density to adequately indicate the true landform, no greater than 50 metre interval in open areas of even gradient, closer when indicating embankments, stockpiles, etc.

## Schedule 3 - Forms to be used

Table S3: Reporting Forms		
Media/parameter	Form Number	Date of Form
Landfill Gas	None provided. Reporting format to be agreed in writing with the Agency.	
Ground water	None provided. Reporting format to be agreed in writing with the Agency.	
Surface water	None provided. Reporting format to be agreed in writing with the Agency.	
Leachate	None provided. Reporting format to be agreed in writing with the Agency.	
Waste Return	None provided. Reporting format to be agreed in writing with the Agency.	
Landfill Body	None provided. Reporting format to be agreed in writing with the Agency.	



## Schedule 4 - Reporting of performance data

**Table S4.1: Annual Production/Treatment**

Leachate: Disposed of off site; Disposed of to any onsite effluent treatment plant.	Tonnes/year
Surface water and/ or groundwater: Disposed of off site; Disposed of to any onsite effluent treatment plant.	
Landfill gas: Disposed of by flare	

**Table S4.2: Performance parameters**

	Frequency of assessment	Annual average	
Potable water use	Annually		Cu m/tonne of waste disposed
Energy used	Annually		MW of electricity/tonne of biodegradable waste disposed
Non potable water use	Annually		Cu m/tonne of waste disposed
Energy generated	Annually		MW of electricity/tonne of biodegradable waste disposed
Waste Hazard Score (from H1)	Annually		
Waste Disposal Score (from H1)	Annually		

# Schedule 5 - Site Plan

Drawing Number 249 Figure 2 - PPC Permit Area

## Schedule 6 - List of Permitted Wastes

EWC Code	Description
<b>01</b>	<b>WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS</b>
<b>01 01</b>	<b>wastes from mineral excavation</b>
01 01 02	wastes from mineral non-metalliferous excavation
<b>01 04</b>	<b>wastes from physical and chemical processing of non-metalliferous minerals</b>
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
<b>02</b>	<b>WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING</b>
<b>02 01</b>	<b>wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing</b>
02 01 04	waste plastics (except packaging)
02 01 10	waste metal
<b>02 04</b>	<b>wastes from sugar processing</b>
02 04 02	off-specification calcium carbonate
<b>03</b>	<b>WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURNITURE, PULP, PAPER AND CARDBOARD</b>
<b>03 01</b>	<b>wastes from wood processing and the production of panels and furniture</b>
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
<b>03 03</b>	<b>wastes from pulp, paper and cardboard production and processing</b>
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
<b>04</b>	<b>WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES</b>
<b>04 01</b>	<b>wastes from the leather and fur industry</b>
04 01 09	wastes from dressing and finishing
<b>04 02</b>	<b>wastes from the textile industry</b>
04 02 21	wastes from unprocessed textile fibres
04 02 22	wastes from processed textile fibres
<b>07</b>	<b>WASTES FROM ORGANIC CHEMICAL PROCESSES</b>
<b>07 02</b>	<b>wastes from the MFSU of plastics, synthetic rubber and man-made fibres</b>
07 02 13	waste plastic
<b>09</b>	<b>WASTES FROM THE PHOTOGRAPHIC INDUSTRY</b>
<b>09 01</b>	<b>wastes from the photographic industry</b>
09 01 10	single-use cameras without batteries
09 01 12	single-use cameras containing batteries other than those mentioned in 09 01 11
<b>10</b>	<b>WASTES FROM THERMAL PROCESSES</b>
<b>10 02</b>	<b>wastes from the iron and steel industry</b>
10 02 01	wastes from the processing of slag
10 02 02	unprocessed slag
<b>10 05</b>	<b>wastes from zinc thermal metallurgy</b>
10 05 01	slags from primary and secondary production

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

EWC Code	Description
17 02 01	Wood
17 02 02	Glass
17 02 03	Plastic
<b>17 04</b>	<b>metals (including their alloys)</b>
17 04 07	mixed metals
<b>17 05</b>	<b>soil (including excavated soil from contaminated sites), stones and dredging spoil</b>
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
<b>17 09</b>	<b>other construction and demolition wastes</b>
17 09 04	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03
<b>19</b>	<b>WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION/INDUSTRIAL USE</b>
<b>19 02</b>	<b>wastes from physico/chemical treatments of waste (including dechromatation, decyanidation,</b>
19 02 03	premixed wastes composed only of non-hazardous wastes
<b>19 03</b>	<b>stabilised/solidified wastes</b>
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
<b>19 04</b>	<b>vitrified waste and wastes from vitrification</b>
19 04 01	vitrified waste
<b>19 05</b>	<b>wastes from aerobic treatment of solid wastes</b>
19 05 01	non-composted fraction of municipal and similar wastes
19 05 03	off-specification compost
<b>19 08</b>	<b>wastes from waste water treatment plants not otherwise specified</b>
19 08 01	Screenings
19 08 02	waste from desanding
<b>19 09</b>	<b>wastes from the preparation of water intended for human consumption or water for industrial use</b>
19 09 01	solid waste from primary filtration and screenings
<b>19 10</b>	<b>wastes from shredding of metal-containing wastes</b>
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
<b>19 12</b>	<b>wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising)</b>
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
<b>20</b>	<b>MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES)</b>
<b>20 01</b>	<b>separately collected fractions (except 15 01)</b>
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
<b>20 02</b>	<b>garden and park wastes (including cemetery waste)</b>
20 02 02	soil and stones
20 02 03	other non-biodegradable wastes
<b>20 03</b>	<b>other municipal wastes</b>
20 03 01	mixed municipal waste
20 03 03	street-cleaning residues
20 03 07	bulky waste

END OF PERMIT