



**ENVIRONMENT  
AGENCY**

## **Variation Notice with introductory note**

**Pollution Prevention and Control (England & Wales) Regulations 2000**

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**Bryn Posteg Landfill  
Sundorne Products (Llanidloes) Ltd  
Tylwch Road  
Llanidloes  
Powys  
SY18 6JJ**

**Variation Notice Number**

**LP3739ME**

**Permit number**

**BU7766**

# Bryn Posteg Landfill

## Permit Number BU7766

### 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 part of 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.

There are no substantial changes to the installation as a result of this variation. The non-technical summary from the original Permit is repeated here for the sake of clarity:

The main activity relates to the disposal of up to 75,000 tonnes of non-hazardous waste in a extension to the existing site, together with an element of overtipping the existing licensed area. In addition the permit will control the related activities of landfill gas and leachate management.

#### Status Log of the permit

Detail	Date	Comment
ApplicationBU7766	Received 22/04/03	Duly made 02/05/03
Response to request for information	Request Schedule 4 dated 6/07/03	Response dated 31/07/03
Response to request for information	Schedule 4 dated 11/08/03	Response dated 05/09/03
	Follow-up Letter dated 21/10/03	Response dated 30/11/03 Response dated 29/12/03
	Follow-up Letter dated 22/12/03	Response dated 05/01/04 Response dated 20/01/04
	Follow-up Letter dated 23/02/04	Response dated 27/02/04
	Follow-up Letter dated 02/03/04	Response dated 11/03/04

Response to request for information	Letter dated 03/06/03	
	Schedule 4 dated 19/09/03	Response dated 01/10/03
	Letter dated 19/11/03	Response dated 20/11/03
	Follow-up Letter dated 22/12/03	Response dated 03/02/04
Response to request for information	Letter dated 11/09/03	Response dated 17/09/03
	Schedule 4 dated 14/10/03	Response dated 27/10/03
		Response dated 22/12/03
	Letter dated 12/01/04	
	Follow-up Letter dated 04/02/04	Response dated 18/02/04 Response dated 23/02/04
Response to request for information	Letter dated 22/09/03	Response dated 01/10/03
		CQA Plan received dated 20/01/04
		Response dated 11/03/04
	Letter dated 02/03/04	Response dated 12/05/04
Response to request for information	Letter dated 26/09/03	Response dated 20/10/03
Response to request for information	Schedule 4 dated 19/11/03	Response dated 15/12/03
	Follow-up Letter dated 22/12/03	Response dated 07/01/04
	Letter dated 27/01/04	Response dated 29/01/04
	Follow-up letter dated 02/03/04	Response dated 11/03/04
		Leachate management plan dated March 2004
Response to request for information	E-mail dated 15/09/03	
	Further E-mail dated 25/09/03	Response by e-mail dated 26/09/03
		Response dated 04/11/03
	Letter dated 22/12/03	Response dated 09/01/04
Response to request for information	Letter dated 19/11/03	Response dated 27/11/03
	Financial Provision – Commercially confidential	Follow-up Response dated 05/12/03
	Letter dated 16/12/04	Response dated 17/02/04

Response to request for information - odour	Meeting of the 05/04/04	Appendix 1 & 2 dated 16/04/04 Odour Management Plan dated 14/05/04 Appendix 3 dated 17/05/04
Request to extend determination	Request dated 06/04/04	Request accepted 07/04/04
Request to extend determination	Request dated 07/05/04	Request accepted 10/05/04
Request to extend determination	Request dated 20/05/04	Request accepted 24/05/04
Request to extend determination	Request dated 28/05/04	Request accepted 01/05/04
Request to extend determination	Request dated 11/06/04	Request accepted 14/06/04
Permit determined	Issued 15/06/04	
Partial Transfer Application	Received 10 March 2005	Additional information received 18/03/05  Duly Made 18 April 2005  Additional information received 21/04/05
Request for further Information	Meeting of the 03/05/05 in connection to the Gas Engine permit	Response dated 10/05/05  Response dated 25/05/05
New Permit (TP3736SQ) for Gas Engine	Issued 15 June 2005	
Variation (HP3536SG) to Permit BU7766	Issued 15 June 2005	
New Template Variation Determined LP3739ME	Issued 26 March 2007	

**Superseded or Partially Superseded Licences/Authorisations/Consents relating to this installation**

Holder	Reference Number	Date of Issue	Fully or Partially Superseded
Sundorne Products (Llanidloes) Ltd	EAWML 47065	01/04/1996	Fully

**Other PPC permits relating to this installation**

Operator	Permit Number	Date of Issue
Gwynt Cymru Ltd	TP3736SQ	15 June 2005

**Other existing Licences/Authorisations/Registrations relating to this site**

Holder	Reference Number	Date of issue
Sundorne Products (Llanidloes) Ltd	EAWML 47065	01/04/96
Trade Effluent Discharge Consent	01226025501	01/08/85

End of Introductory Note

Variation Number LP3739ME

**Variation Notice**

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

## Variation Notice

Permit number  
**BU7766**

Variation number  
**LP3739ME**

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

**Sundorne Products (Llanidloes) Ltd** ("the operator"),

whose registered office (or principal office) is

**Potters Yard  
Severn Road  
Welshpool  
Powys  
SY217YE**

Company registration number 3353423

to operate part of an installation at

**Bryn Posteg Landfill  
Tylwch Road  
Llanidloes  
SY18 6JJ**

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

The notice shall take effect from

Signed	Date
	26 March 2007

Emily Finney  
Authorised to sign on behalf of the Agency

Variation Number **LP3739ME**

**SCHEDULE 1 – CONDITIONS TO BE DELETED**

1. All conditions and schedules are deleted from the original permit BU7766 and variation HP3536SG

**SCHEDULE 2 – CONDITIONS TO BE AMENDED**

2. None

**SCHEDULE 3 – CONDITIONS TO BE ADDED**

3. The following conditions and schedules are added to the permit at attached to this notice.

# **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 21 June 2006 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.

## **1.6 Multiple operator installations**

- 1.6.1 Where the operator notifies the Agency under condition 4.3.1 (a) or 4.3.1 (c), the operator shall also notify without delay the other operator(s) of the installation of the same information.



## **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 authorised under condition 2.1.1 shall not extend beyond the Site, being the land shown edged in red on the Site Plan 1 in Schedule 2 to this Permit, excluding the area hatched brown identified as 'MRF Composting' on plan 1 and the area edged in green as detailed on plans No. 2 and 3 in Schedule 2.

### **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.

### **2.6 Pre-operational conditions**

There are no pre-operational conditions in this permit.

### **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, and
  - (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) they are not liquid waste (including waste waters but excluding sludge *and excluding liquid waste accepted at a permitted leachate treatment activity*), 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) 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 no. DRWG9

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 S1.4.

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 2 months of the issue of this permit, 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, S4.3 and S4.4.
- 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.
- 3.1.3 Where a substance is specified in schedule 4 table S4.3 or S4.4 but no limit is set for it, the concentration of such substance in emissions to water from the relevant emission point shall be no greater than the background concentration.

#### **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 S4.5 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, tables S4.6, S4.7 and S4.8 shall not be exceeded.
- 3.3.6 The limits for particulate matter arising from the installation set out in schedule 4, table S4.10, 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 S4.9;
  - (b) Point source emissions specified in tables S4.2, S4.3 and S4.4;
  - (c) Groundwater specified in tables S4.5 and S4.11;
  - (d) Landfill gas specified in tables S4.6, S4.7, S4.8;
  - (e) Particulate matter specified in table S4.10.
- 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 6 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) ambient air monitoring for landfill gas and particulate matter;
  - (iv) sub-surface landfill gas monitoring;
  - (v) leachate levels, quality and quantities;
  - (vi) landfill gas generation and collection;
  - (vii) waste types and quantities;
  - (viii) topographical surveys; and
  - (ix) 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 held on site and 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.



- (d) bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

## **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.
<b>Directly Associated Activity</b>		
Leachate management e.g. biological treatment of leachate.	Storage and treatment of leachate in a facility with a capacity of <50 t/day.	Leachate arising from the landfill.
Landfill gas flaring	Flaring of landfill gas for disposal in an appliance.	Landfill gas arising from the landfill.
Leachate discharges to foul sewers	Discharge of leachate from the landfill	From leachate management system to point of entry to sewer
Water discharges to controlled waters.	Discharges of site drainage from the landfill.	From surface water management system to point of entry to controlled waters.
Fuel storage.	Storage of fuel for operation of plant and equipment.	Fuel storage tank.

Table S1.2 Operating techniques

Description	Parts	Date Received
Application	The response to questions 1.2, 2.1, 2.2, 2.3, 2.4 and 2.5 in part B of the Application Form	22/04/03
Letter from Enviroarm Ltd detailing: surface water management	Section titled 'Engineering and Operational Management and Monitoring'	31/07/03
Letter from Enviroarm Ltd detailing: Waste acceptance, Leachate Management, Surface water Management, Groundwater Management, Dirt and Mud Management, Dust Management and Monitoring, Odour Management and Monitoring, Landfill Body Monitoring, Restoration and Aftercare, Odour risk Assessment, Particulate Matter Risk Assessment, Landfill Gas Risk Assessment and Waste Deposit and Emplacement, Unacceptable Waste Quarantine Area	All	05/09/03
Follow-up Letter from Enviroarm Ltd in connection with the initial letter of 05/09/03.	All	30/11/03
Follow-up Letter from Enviroarm Ltd in connection with the initial letter of 05/09/03	All	29/12/03
Letter from Enviroarm Ltd in connection with the Unacceptable Waste Quarantine Area.	All	05/01/04
Letter from Enviroarm Ltd in connection with the Unacceptable Waste Quarantine Area.	All	20/01/04
Follow-up Letter from Enviroarm Ltd in connection with the Unacceptable Waste Quarantine Area and revised surface water management plan.	All	27/02/04
Follow-up Letter from Enviroarm Ltd in connection with the initial letter of 05/09/03	All	11/03/03
Letter from Enviroarm Ltd detailing mine shaft stability issues	All	01/10/03

Letter from Evans Logistics containing a response from Mouchel Parkman in connection with mineshaft issues	All	03/02/04
Letter from Enviroarm Ltd detailing issues in connection with the hydrogeological risk assessment	All	17/09/03
Follow-up Letter from Enviroarm Ltd detailing issues in connection with the hydrogeological risk assessment	All	27/10/03
Follow-up Letter from Enviroarm Ltd detailing issues in connection with the hydrogeological risk assessment containing a revised Land-Sim Model.	All	22/12/03
Follow-up Letter from Enviroarm Ltd detailing issues in connection with the hydrogeological risk assessment containing a revised Land-sim Model.	All	18/02/04
Clarification letter from Enviroarm Ltd in connection to their letter of the 18/02/04	All	23/02/04
Letter from Enviroarm Ltd detailing issues concerning mineralogy issues	All	01/10/03
Letter from Enviroarm Ltd enclosing the CQA Plan for the installation	All	20/01/04
Letter from Enviroarm Ltd clarifying a number of issues in the CQA plan	All	11/03/04
Addendum No.3 to the CQA plan	All	12/05/04
Letter from Enviroarm Ltd detailing amendments to waste types and acceptance criteria and non conformance procedures.	All	20/10/03
Letter from Egniol Ltd detailing amendments to leachate management plan together with a revised copy of the leachate management plan	All	15/12/03

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Letter from Egniol Ltd with further amendments to the leachate management plan and a revised copy of the leachate management plan (2 <sup>nd</sup> Revision).	All	05/01/04
Letter from Egniol amending the leachate head to a 1m control level	All	29/01/04
Fax from Egniol amending a number of tables within the leachate management plan.	All	11/03/04
Revised Leachate Management Plan	All	March 2004
E-mail from Egniol Ltd concerning the Landfill Gas risk Assessment	All	25/09/03
Letter from Egniol Ltd amending landfill gas risk assessment	All	04/11/03
Letter from Egniol Ltd amending the landfill management plan	All	08/01/04
Appendix 1 & 2 to the Odour Management Plan	All	16/04/04
Odour Management Plan	All	14/05/04
Appendix 3 to the Odour Management Plan	All	17/05/04
Evans Logistics letter regarding monitoring methods	All	13/07/04
Odour assessment study	All	August 2004
Additional letter from Sundorne regarding odour modelling	All	17/11/04
Letter regarding monitoring methods	All	09/05/05
Document entitled 'Potential leachate improvements to the Leachate Management System	All	August 2005
Revised closure and aftercare plan and surface emissions risk assessment	All	14/12/05
Letter from Egniol regarding Aftercare and closure	All	18/04/06

**Table S1.3 Improvement programme requirements**

Reference	Requirement	Date
1	Undertake an assessment of the impact on the water environment from current emissions of effluent to sewer. The Operator shall use the methodology prescribed in the Agency's guidance 'Environmental Assessment and Appraisal of BAT' (Ref. IPPC H1) in making this assessment. The Operator shall identify substances present in the effluent that are considered significant, and submit proposed emission limit values for these substances in the form of a report. Flow rate must also be considered as part of this assessment. The report shall also include an effluent monitoring plan for any key substances identified and an action plan to reduce releases of those substances that are considered significant as part of the H1 Assessment. The Operator shall implement any improvements or measures as approved in writing by the Environment Agency.	1 <sup>st</sup> October 2007

**Table S1.4 Annual waste input limits**

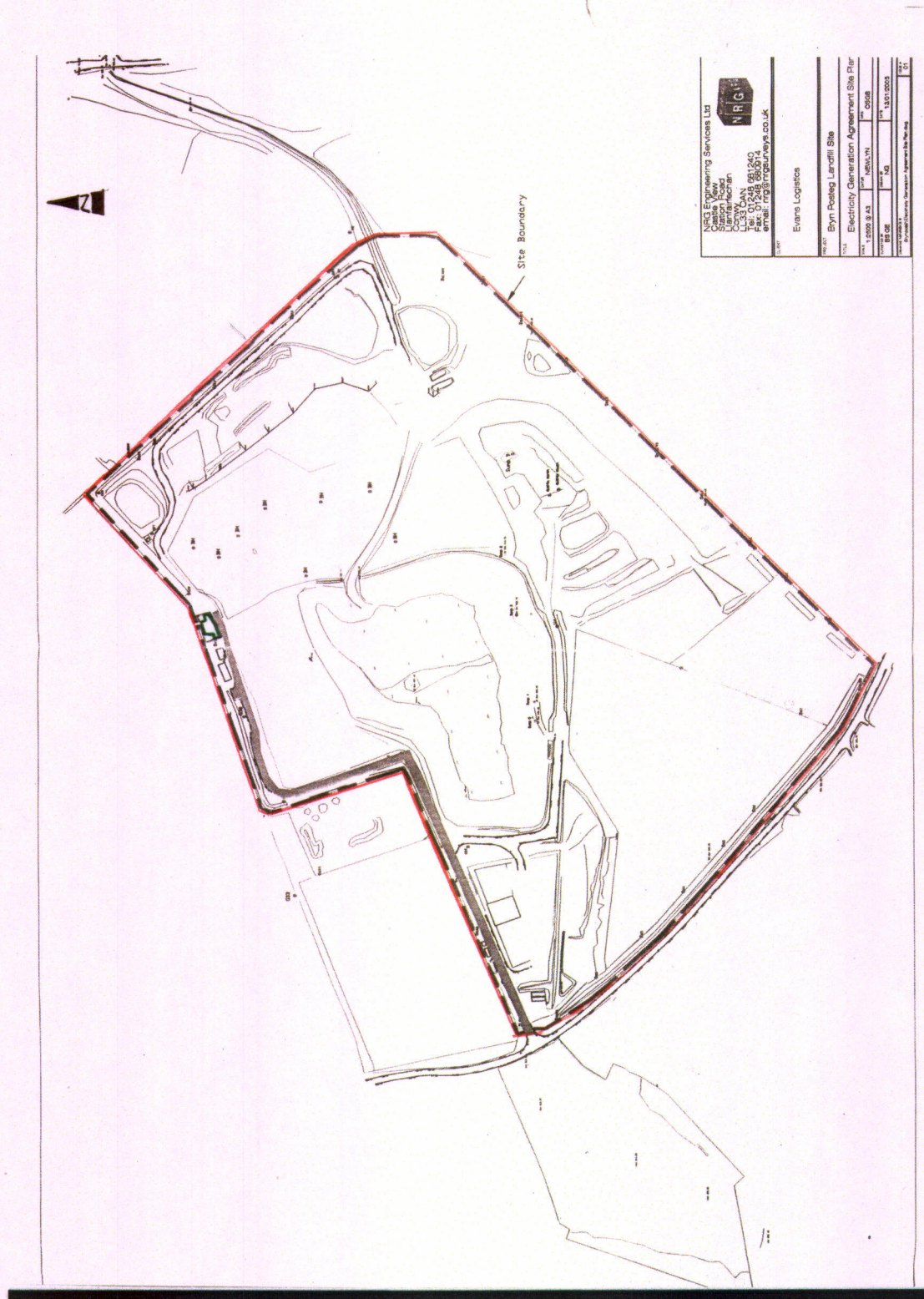
Category	Limit Tonnes/ Year
Non-hazardous waste	70,000
Inert waste	5,000





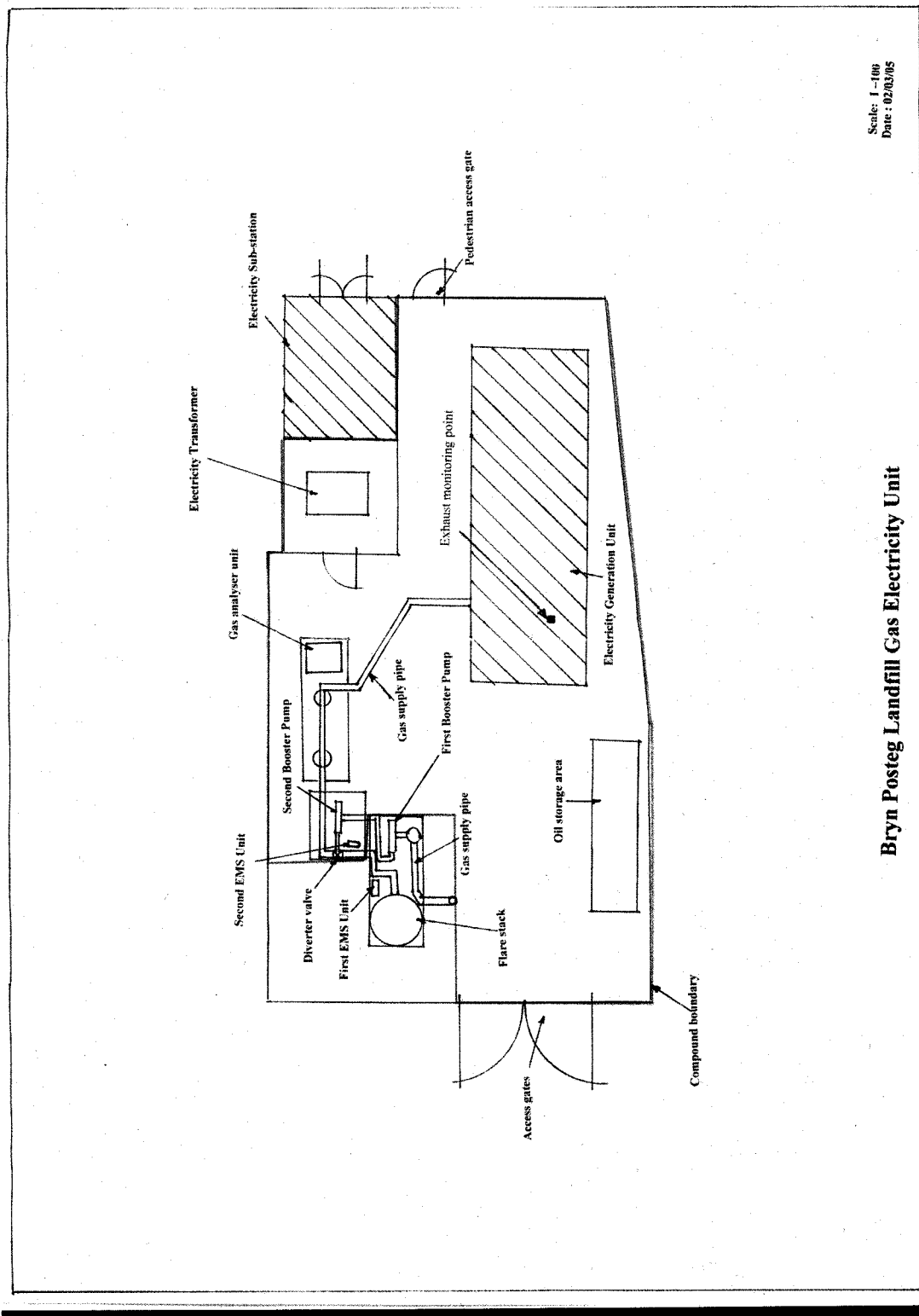


Plan No. 2:





Plan No. 3:



## Schedule 3 - List of permitted wastes

EWC	Description
	<b>Waste categories which may require specific handling procedures on site due to physical or chemical characteristics</b>
	<b>Inert Wastes for Restoration, Capping or Engineering</b>
<b>01</b>	<b>WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS</b>
01.01	waste from mineral excavation
01.01.01	wastes from mineral metalliferous excavation
01.01.02	wastes from mineral non-metalliferous excavation
01.03	wastes from physical and chemical processing of metalliferous minerals
01.03.06	tailings other than those mentioned in 01.03.04 and 01.03.05
01.03.08	dusty and powdery wastes other than those mentioned in 01.03.07
01.03.09	red mud from alumina production other than the wastes mentioned in 01.03.07
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
01.04.10	dusty and powdery wastes other than those mentioned in 01.04.07
01.04.11	waste from potash and rock salt processing other than those mentioned in 01.04.07
01.04.12	tailings and other wastes from washing and cleaning of minerals other than those mentioned in 01.04.07 and 01.04.11
01.04.13	wastes from stone cutting and sawing other than those mentioned in 01.04.07
01.05	drilling muds and other drilling wastes
01.05.04	freshwater drilling muds and wastes
01.05.07	barite-containing drilling muds and wastes other than those mentioned in 01.05.05 and 01.05.06
01.05.08	chloride-containing drilling muds and wastes other than those mentioned in 01.05.05 and 01.05.06
<b>02</b>	<b>WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING</b>
02.01	waste from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02.01.01	sludges from washing and cleaning
02.01.02	animal-tissue waste
02.01.03	plant-tissue waste
02.01.04	waste plastics (except packaging)
02.01.06	animal faeces, urine and manure (including spoiled straw), effluent, collected separately and treated off-site
02.01.07	wastes from forestry
02.01.09	agrochemical waste other than those mentioned in 02.01.08
02.01.10	waste metal
02.02	wastes from the preparation and processing of meat, fish and other foods of animal origin
02.02.01	sludges from washing and cleaning
02.02.02	animal-tissue waste
02.02.03	materials unsuitable for consumption or processing
02.02.04	sludges from on-site effluent treatment
02.03	wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation
02.03.01	sludges from washing, cleaning, peeling, centrifuging and separation
02.03.04	materials unsuitable for consumption or processing
02.03.05	sludges from on-site effluent treatment
02.04	wastes from sugar processing
02.04.01	soil from washing and cleaning beet
02.04.02	off-specification calcium carbonate
02.04.03	sludges from on-site effluent treatment
02.05	wastes from dairy products industry

02.05.01	materials unsuitable for consumption or processing
02.05.02	sludges from on-site effluent treatment
<b>02.06</b>	<b>wastes from the baking and confectionery industry</b>
02.06.01	materials unsuitable for consumption or processing
02.06.03	sludges from on-site effluent treatment
<b>02.07</b>	<b>wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)</b>
02.07.01	wastes from washing, cleaning and mechanical reduction of raw materials
02.07.03	wastes from chemical treatment
02.07.05	sludges from on-site effluent treatment
<b>03</b>	<b>WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURNITURE, PULP, PAPER AND CARDBOARD</b>
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
<b>03.03</b>	<b>wastes from pulp, paper and cardboard production and processing</b>
03.03.01	waste bark and wood
03.03.02	green liquor sludge (from recovery of cooking liquor)
03.03.05	de-inking sludges from paper recycling
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
03.03.09	lime mud waste
03.03.10	fibre rejects, fibre-, filler- and coating-sludges from mechanical separation
03.03.11	sludges from on-site effluent treatment other than those mentioned in 03.03.10
<b>04</b>	<b>WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES</b>
04.01	wastes from the leather and fur industry
04.01.01	fleshings and lime split wastes
04.01.02	liming waste
04.01.06	sludges, in particular from on-site effluent treatment containing chromium
04.01.07	sludges, in particular from on-site effluent treatment free of chromium
04.01.08	waste tanned leather (blue sheetings, shavings, cuttings, buffing dust) containing chromium
04.01.09	wastes from dressing and finishing
<b>04.02</b>	<b>wastes from the textile industry</b>
04.02.09	wastes from composite materials (impregnated textile, elastomer, plastomer)
04.02.10	organic matter from natural products (for example grease, wax)
04.02.15	wastes from finishing other than those mentioned in 04.02.14
04.02.17	dye-stuffs and pigments other than those mentioned 04.02.16
04.02.20	sludges from on-site effluent treatment other than those mentioned in 04.02.19
04.02.21	wastes from unprocessed textile fibres
04.02.22	wastes from processed textile fibres
<b>05</b>	<b>WASTES FROM PETROLEUM REFINING, NATURAL GAS PURIFICATION AND PYROLYTIC TREATMENT OF COAL</b>
05.01	wastes from petroleum refining
05.01.17	bitumen
<b>06</b>	<b>WASTES FROM INORGANIC CHEMICAL PROCESSES</b>
06.05	sludges from on-site effluent treatment
06.05.03	sludges from on-site effluent treatment other than those mentioned in 06.05.02
<b>06.09</b>	<b>wastes from the MFSU of phosphorous chemicals and phosphorous chemical processes</b>
06.09.02	phosphorous slag
06.09.04	calcium-based reaction wastes other than those mentioned in 06.09.03
<b>06.11</b>	<b>wastes from the manufacture of inorganic pigments and opacifiers</b>
06.11.01	calcium-based reaction wastes from titanium dioxide production
<b>06.13</b>	<b>wastes from inorganic chemical processes not otherwise specified</b>
06.13.03	carbon black
<b>07</b>	<b>WASTES FROM ORGANIC CHEMICAL PROCESSES</b>
07.01	wastes from the manufacture, formulation, supply and use (MFSU) of basic organic

<b>chemicals</b>	
<b>07.02</b>	wastes from the MFSU of plastics, synthetic rubber and man-made fibres
07.02.12	sludges from on-site effluent treatment other than those mentioned in 07.02.11
07.02.13	waste plastic
07.02.15	wastes from additives other than those mentioned in 07.02.14
07.02.17	Wastes containing silicones other than those mentioned in 07.02.16
<b>07.03</b>	waste from the MFSU of organic dyes and pigments
07.03.12	sludges from on-site effluent treatment other than those mentioned in 07.03.11
<b>07.04</b>	wastes from the MFSU of organic plant protection products (except 02.01.08 and 02.01.09), wood preserving agents (except 03.02) and other biocides
07.04.12	sludges from on-site effluent treatment other than those mentioned in 07.04.11
<b>07.05</b>	waste from the MFSU of pharmaceuticals
07.05.12	sludges from on-site effluent treatment other than those mentioned in 07.05.11
07.05.14	solid wastes other than those mentioned in 07.05.13
<b>07.06</b>	waste from the MFSU of fats, grease, soap, detergents, disinfectants and cosmetics
07.06.12	sludges from on-site effluent treatment other than those mentioned in 07.06.11
<b>07.07</b>	wastes from the MFSU of fine chemicals and chemical products not otherwise specified
07.07.12	sludges from on-site effluent treatment other than those mentioned in 07.07.11
<b>08</b>	<b>WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHERS AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS</b>
<b>08.01</b>	wastes from MFSU and removal of paint and varnish
08.01.12	waste paint and varnish other than those mentioned in 08.01.11 (08.01.11 - haz)
08.01.14	sludges from paint or varnish other than those mentioned in 08.01.13 (08.01.13 - haz)
08.01.18	wastes from paint or varnish removal other than those mentioned in 08.01.17 (08.01.17 - haz)
<b>08.02</b>	wastes from MFSU of other coatings (including ceramic materials)
08.02.01	waste coating powders
<b>08.03</b>	wastes from MFSU of printing inks
08.03.13	waste ink other than those mentioned in 08.03.12
08.03.15	ink sludges other than those mentioned in 08.03.14
<b>08.04</b>	wastes from MFSU of adhesives and sealants (including waterproofing products)
08.04.10	waste adhesives and sealants other than those mentioned in 08.04.09
08.04.12	adhesive and sealant sludges other than those mentioned in 08.04.11
08.04.14	aqueous sludges containing adhesives or sealants other than those mentioned in 08.04.13
<b>09</b>	<b>WASTES FROM THE PHOTOGRAPHIC INDUSTRY</b>
<b>09.01</b>	wastes from the photographic industry
09.01.07	photographic film and paper containing silver or silver compounds
09.01.08	photographic film and paper free of silver or silver compounds
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>10.01</b>	wastes from power stations and other combustion plants (except 19)
10.01.01	bottom ash, slag and boiler dust (excluding boiler dust mentioned in 10.01.04)
10.01.02	coal fly ash
10.01.03	fly ash from peat and untreated wood
10.01.05	calcium-based reaction wastes from flue-gas desulphurisation in solid form
10.01.07	calcium-based reaction wastes from flue-gas desulphurisation in sludge form
10.01.17	fly ash from co-incineration other than those mentioned in 10.01.16
10.01.19	wastes from gas cleaning other than those mentioned in 10.01.05, 10.01.07 and 10.01.18
10.01.21	sludges from on-site effluent treatment other than those mentioned in 10.01.20
10.01.23	aqueous sludges from boiler cleansing other than those mentioned in 10.01.22
10.01.24	sands from fluidised beds
10.01.25	wastes from fuel storage and preparation of coal-fired power plants
10.01.26	wastes from cooling-water treatment

10.02	waste from the iron and steel industry
10.02.01	wastes from the processing of slag
10.02.08	solid wastes from gas treatment other than those mentioned in 10.02.07
10.02.12	waste from cooling-water treatment other than those mentioned in 10.02.11
10.02.14	sludges and filter cakes from gas treatment other than those mentioned in 10.02.13
10.02.15	other sludges and filter cakes
10.02	wastes from aluminium thermal metallurgy
10.03.02	anode scraps
10.03.05	waste alumina
10.03.16	skimmings other than those mentioned in 10 03 15
10.03.18	carbon-containing wastes from anode manufacture other than those mentioned in 10 03 17
10.03.20	flue-gas dust other than those mentioned in 10 03 19
10.03.22	other particulates and dust (including ball-mill dust) other than those mentioned in 10 03 21
10.03.24	solid wastes from gas treatment other than those mentioned in 10 03 23
10.03.26	sludges and filter cakes from gas treatment other than those mentioned in 10 03 25
10.03.28	wastes from cooling-water treatment other than those mentioned in 10 03 27
10.03.30	wastes from treatment of salt slags and black drosses other than those mentioned in 10 03 29
10.08	wastes from other non-ferrous thermal metallurgy
10.08.04	particulates and dust
10.08.09	other slags
10.08.11	dross and skimmings other than those mentioned in 10 08 10
10.08.13	carbon-containing wastes from anode manufacture other than those mentioned in 10 08 12
10.08.14	anode scrap
10.08.16	flue-gas dust other than those mentioned in 10 08 15
10.08.18	sludges and filter cakes from flue-gas treatment other than those mentioned in 10 08 17
10.08.20	wastes from cooling-water treatment other than those mentioned in 10 08 19
10.09	wastes from casting of ferrous pieces
10.09.03	furnace slag
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
10.09.10	flue-gas dust other than those mentioned in 10.09.09
10.09.12	other particulates other than those mentioned in 10.09.11
10.09.14	waste binders other than those mentioned in 10 09 13
10.09.16	waste crack-indicating agent other than those mentioned in 10 09 15
10.10	wastes from casting of non-ferrous pieces
10.10.03	furnace slag
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
10.10.10	flue-gas dust other than those mentioned in 10.10.09
10.10.12	other particulates other than those mentioned in 10 10 11
10.10.14	waste binders other than those mentioned in 10 10 13
10.10.16	waste crack-indicating agent other than those mentioned in 10 10 15
10.11	wastes from manufacture of glass and glass products
10.11.03	waste glass-based fibrous materials
10.11.05	particulates and dust
10.11.10	waste preparation mixture before thermal processing, other than those mentioned in 10.11.09
10.11.12	waste glass other than those mentioned in 10.11.11
10.11.14	glass-polishing and -grinding sludge other than those mentioned in 10.11.13
10.11.18	sludges and filter cakes from flue-gas treatment other than those mentioned in 10.11.17
10.11.16	solid wastes from flue-gas treatment other than those mentioned in 10 11 15
10.11.20	solid wastes from on-site effluent treatment other than those mentioned in 10.11.19
10.12	wastes from the manufacture of ceramic goods, bricks, tiles and construction products
10.12.01	waste preparation mixture before thermal processing
10.12.03	particulates and dust
10.12.05	sludges and filter cakes from gas treatment
10.12.06	discarded moulds
10.12.08	waste ceramics, bricks, tiles and construction products (after thermal processing)

10.12.10	solid waste from gas treatment other than those mentioned in 10.12.09
10.12.12	waste from glazing other than those mentioned in 10.12.11
10.12.13	sludge from on-site effluent treatment
<b>10.13</b>	<b>wastes from manufacture of cement, lime and plaster and articles and products made from them</b>
10.13.01	waste preparation mixture before thermal processing
10.13.04	wastes from calcination and hydration of lime
10.13.06	particulates and dust (except 10.13.12 and 10.13.13)
10.13.07	sludges and filter cakes from gas treatment
10.13.11	wastes from cement-based composite materials other than those mentioned in 10.13.09 and 10.13.10
10.13.13	solid waste from gas treatment other than those mentioned in 10.13.12
10.13.14	waste concrete and concrete sludge
<b>11</b>	<b>WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO-METALLURGY</b>
<b>11.01</b>	<b>wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising)</b>
11.01.10	sludges and filter cakes other than those mentioned in 11.01.09
11.01.14	degreasing wastes other than those mentioned in 11.01.13
<b>11.02</b>	<b>wastes from non-ferrous hydrometallurgical processes</b>
11.02.03	wastes from the production of anodes for aqueous electrolytical processes
11.02.06	wastes from copper hydrometallurgical processes other than those mentioned in 11.02.05
<b>11.05</b>	<b>wastes from hot galvanising processes</b>
11.05.01	hard zinc
11.05.02	zinc ash
<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>
12.01.01	ferrous metal filings and turnings
12.01.02	ferrous metal dust and particles
12.01.03	non-ferrous metal filings and turnings
12.01.04	non-ferrous metal dust and particles
12.01.05	plastics shavings and turnings
12.01.13	welding wastes
12.01.15	machining sludges other than those mentioned in 12 01 14
12.01.17	waste blasting material other than those mentioned in 12 01 16
12.01.21	spent grinding bodies and grinding materials other than those mentioned in 12 01 20
<b>15</b>	<b>WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED</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
15.01.07	glass 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 dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16.06 and 16.08)</b>
16.01.03	end-of-life tyres
16.01.06	end-of-life vehicles, containing neither liquids nor other hazardous components
16.01.12	brake pads other than those mentioned in 16 01 11
16.01.16	tanks for liquefied gas
16.01.17	ferrous metal

16.01.18	non-ferrous metal
16.01.19	plastic
16.01.20	glass
16.01.22	components not otherwise specified
<b>16.02</b>	<b>wastes from electrical and electronic equipment</b>
16.02.14	discarded equipment other than those mentioned in 16.02.09 to 16.02.13
16.02.16	components removed from discarded equipment other than those mentioned in 16.02.15
<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>16.05</b>	<b>gases in pressure containers and discarded chemicals</b>
16.05.05	gases in pressure containers other than those mentioned in 16.05.04
<b>16.06</b>	<b>batteries and accumulators</b>
16.06.04	alkaline batteries (except 16.06.03)
16.05.05	other batteries and accumulators non haz
<b>16.11</b>	<b>waste linings and refractories</b>
16.11.02	carbon-based linings and refractories from metallurgical processes other than those mentioned in 16.11.01
16.11.04	other linings and refractories from metallurgical processes other than those mentioned in 16.11.03
16.11.06	linings and refractories from non-metallurgical processes other than those mentioned in 16.11.05
<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>
17.02.01	wood
17.02.02	glass
17.02.03	plastic
<b>17.03</b>	<b>bituminous mixtures, coal tar and tarred products</b>
17.03.02	bituminous mixtures other than those mentioned in 17.03.01
<b>17.04</b>	<b>metals (including their alloys)</b>
17.04.01	copper, bronze, brass
17.04.02	aluminium
17.04.03	lead
17.04.04	zinc
17.04.05	iron and steel
17.04.06	tin
17.04.07	mixed metals
17.04.11	cables other than those mentioned in 17.04.10
<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
17.05.06	dredging spoil other than those mentioned in 17.05.05
17.05.08	track ballast other than those mentioned in 17.05.07
17.06.04	insulation materials other than those mentioned in 17.06.01 and 17.06.03
<b>17.08</b>	<b>gypsum-based construction material</b>
17.08.02	gypsum-based construction materials other than those mentioned in 17.08.01
<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>18</b>	<b>WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (except kitchen and restaurant wastes not arising from immediate health care)</b>
18.01	wastes from natal care, diagnosis, treatment or prevention of disease in humans
18.01.04	wastes whose collection and disposal is not subject to special requirements in order to prevent infection (for example dressings, plaster casts, linen, disposable clothing, diapers)
18.01.07	chemicals other than those mentioned in 18.01.06
<b>19</b>	<b>WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE</b>
19.01	wastes from incineration or pyrolysis of waste
19.01.02	ferrous materials removed from bottom ash
19.01.12	bottom ash and slag other than those mentioned in 19.01.11
19.01.14	fly ash other than those mentioned in 19.01.13
19.01.16	boiler dust other than those mentioned in 19.01.15
19.01.18	pyrolysis wastes other than those mentioned in 19.01.17
19.01.19	sands from fluidised beds
19.02	wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
19.02.03	premixed wastes composed only of non-hazardous wastes
19.02.06	sludges from physico/chemical treatment other than those mentioned in 19.02.05
19.02.10	combustible wastes other than those mentioned in 19.02.08 and 19.02.09
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
19.05.02	non-composted fraction of animal and vegetable waste
19.05.03	off-specification compost
19.05.99	wastes not otherwise specified
19.06	wastes from anaerobic treatment of waste
19.06.04	digestate from anaerobic treatment of municipal waste
19.06.06	digestate from anaerobic treatment of animal and vegetable waste
19.07	landfill leachate
19.07.03	landfill leachate (from the landfill site itself not off site)
19.08	wastes from waste water treatment plants not otherwise specified
19.08.01	screenings
19.08.02	waste from desanding
19.08.05	sludges from treatment of urban waste water
19.08.09	grease and oil mixture from oil/water separation containing only edible oil and fats
19.08.14	sludges from other treatment of industrial waste water other than those mentioned in 19.08.13
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
19.09.02	sludges from water clarification
19.09.03	sludges from decarbonation
19.09.04	spent activated carbon
19.09.05	saturated or spent ion exchange resins
19.09.06	solutions and sludges from regeneration of ion exchangers
19.10	wastes from shredding of metal-containing wastes
19.10.01	iron and steel waste
19.10.02	non-ferrous waste
19.10.04	fluff-light fraction and dust other than those mentioned in 19.10.03
19.10.06	other fractions other than those mentioned in 19.10.05
19.11	wastes from oil regeneration
19.11.06	sludges from on-site effluent treatment other than those mentioned in 19.11.05



19.12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19.12.01	paper and cardboard
19.12.02	ferrous metal
19.12.03	non-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)
19.12.10	combustible waste (refuse derived fuel)
19.12.12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19.12.11

19.13	wastes from soil and groundwater remediation
19.13.02	solid wastes from soil remediation other than those mentioned in 19.13.01
19.13.04	sludges from soil remediation other than those mentioned in 19.13.03
19.13.06	sludges from groundwater remediation other than those mentioned in 19.13.05

**20 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS**

20.01	separately collected fractions (except 15.01)
20.01.01	paper and cardboard
20.01.02	glass
20.01.08	biodegradable kitchen and canteen waste
20.01.10	clothes
20.01.11	textiles
20.01.25	edible oil and fat
20.01.28	paint, inks, adhesives and resins other than those mentioned in 20.01.27
20.01.30	detergents other than those mentioned in 20.01.29
20.01.32	medicines other than those mentioned in 20.01.31
20.01.34	batteries and accumulators other than those mentioned in 20.01.33
20.01.36	discarded electrical and electronic equipment other than those mentioned in 20.01.21, 20.01.23 and 20.01.35
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)
20.02.01	biodegradable 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
20.03.02	wastes from markets
20.03.03	street-cleaning residues
20.03.04	septic tank sludge
20.03.06	waste from sewage-cleaning
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
Existing:	}	}	}
LCP1, LCP2, LCP3, LCP6, LCP7 and LCP8	}	}	}
	}	}	}
	}	}	}
Proposed in future phases:	}	}	}
One of RLMP9A (x2)	}	}	}
One of RLMP9B (x2)	}	}	}
One of RLMP9C (x2)	} 1m above sump base	} Monthly	} To be agreed in writing by
One of RLMP9D (x2)	} (lowest point in the cell)	}	} the Agency
	}	}	}
As detailed in plan No.	}	}	}
1168.GPM.MN06C	}	}	}
	}	}	}
Leachate levels shall be monitored at the abstraction point for all phases and two additional points within each new phase.	}	}	}

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
Landfill gas flare marked as LG on site plan 1168.GPM.MN07	Oxides of Nitrogen	}	38.52 mg/m3	-	Annually	Chemiluminescence
	CO	}	32 mg/m3	-	Annually	Non- dispersive infra red analysis
	Total VOCs	}	2.63 mg/m3	-	Annually	Extractive sampling and FID analysis
	Non Methane Volatile Organic Compounds	} Landfill gas } flare	5 mg/m3	-	Annually	Extractive sampling onto sorbent, extraction by CS2 analysis by GC with appropriate detector
	SOx	}	17mg/m3	-	Annually	To be agreed with the Agency
	HCl	}	None	-	Annually	To be agreed with the Agency
	CO <sub>2</sub>	}	None	-	Annually	To be agreed with the Agency
	Polychlorinated dibenzodioxins & polychlorinated dibenzofurans	}	None	-	Annually	To be agreed with the Agency

Footnote: Annual monitoring is only required when flares operate in excess of 10% of the time, taken on an annual assessment period.

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
P1 on Drawing No. SWSP2.	Dissolved Oxygen	}	-	-	Quarterly	To be agreed in writing with the Agency
	Ammoniacal Nitrogen (mg/l)	}	0.25 mg/l	-	Monthly	To be agreed in writing with the Agency
	Suspended Solids	}	50 mg/l	-	Monthly	To be agreed in writing with the Agency
	BOD	}	-	-	Monthly	To be agreed in writing with the Agency
	Water Flow	}	-	-	Monthly	To be agreed in writing with the Agency
	pH	}Site }drainage }from	-	-	Monthly	To be agreed in writing with the Agency
	Temperature	}surface }water	-	-	Quarterly	To be agreed in writing with the Agency
	Electrical Conductivity	}management }system	-	-	Monthly	To be agreed in writing with the Agency
	Chloride	}	-	-	Monthly	To be agreed in writing with the Agency
	COD	}	-	-	Quarterly	To be agreed in writing with the Agency
	Hydrocarbons	}	5 mg/l	-	Monthly	To be agreed in writing with the Agency
	List I substances identified to be present within the leachate	}	Below limits of detection	-	6 monthly	To be agreed in writing with the Agency
P2 on Drawing No. SWSP2.	Dissolved Oxygen	}	-	-	Quarterly	To be agreed in writing with the Agency
	Ammoniacal Nitrogen (mg/l)	}	0.25 mg/l	-	Monthly	To be agreed in writing with the Agency
	Suspended Solids	}	50 mg/l	-	Monthly	To be agreed in writing with the Agency
	BOD	}	-	-	Monthly	To be agreed in writing with the Agency
	Water Flow	}	-	-	Monthly	To be agreed in writing with the Agency
	pH	}Site }drainage }from	-	-	Monthly	To be agreed in writing with the Agency
	Temperature	}surface }water	-	-	Quarterly	To be agreed in writing with the Agency
	Electrical Conductivity	}management }system	-	-	Monthly	To be agreed in writing with the Agency
	Chloride	}	-	-	Monthly	To be agreed in writing with the Agency
	COD	}	-	-	Quarterly	To be agreed in writing with the Agency
	Hydrocarbons	}	5 mg/l	-	Monthly	To be agreed in writing with the Agency
	List I substances identified to be present within the leachate	}	Below limits of detection	-	6 monthly	To be agreed in writing with the Agency

**Table S4.4 Point source emissions to sewer, effluent treatment plant or by tankering or other transfer off-site- emission limits and monitoring requirements**

Emission point Ref. & Location*	Parameter *	Source*	Limit (incl unit)*	Reference Period*	Monitoring Frequency *	Monitoring Standard or Method*
Point LD as detailed on site plan No. 1168.GPM.MN07	Ammoniacal Nitrogen	} Leachate } Effluent } Treatment Plant	150 mg/l	-	Monthly	To be agreed in writing with the Agency
	Suspended Solids		500mg/l	-	Monthly	To be agreed in writing with the Agency
	COD		1000mg/l	-	Monthly	To be agreed in writing with the Agency
	Sulphate		1000mg/l	-	Monthly	To be agreed in writing with the Agency
	Soluble CH <sub>4</sub>		0.14mg/l	-	Monthly	To be agreed in writing with the Agency
	Oils		nil	-	Monthly	To be agreed in writing with the Agency
	pH		6 -10	-	Monthly	To be agreed in writing with the Agency
	Temperature		Less than 43 °C	-	Monthly	To be agreed in writing with the Agency
	List I substances identified to be present within the leachate		-	-	6 monthly	To be agreed in writing with the Agency

\* Above Details to be replaced once new details have been agreed in accordance with improvement condition 2.5.1, reference 1, Table S1.3, Schedule 1.

**Table S4.5 Trigger levels for emissions into groundwater and monitoring requirements**

Monitoring point reference	Parameter	Limit (including unit)	Reference Period	Monitoring frequency	Monitoring standard or method
Monitoring Points as shown on Drawing No. 2 as detailed within the application Boreholes:- BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Ammoniacal Nitrogen	0.5 mg/l	Spot Sample	Quarterly	} To be agreed in writing with the Agency
	Cadmium	0.0001 mg/l	Spot Sample	Quarterly	
	Chloride	400.0 mg/l	Spot Sample	Quarterly	
	Nickel)	0.05 mg/l	Spot Sample	Quarterly	
	Toluene	0.004 mg/l	Spot Sample	Quarterly	
	Xylene	0.003 mg/l	Spot Sample	Quarterly	
	Zinc	5.0 mg/l	Spot Sample	Quarterly	
	Ethylbenzene	0.01 mg/l	Spot Sample	Quarterly	
	Mecoprop	0.00004 mg/l	Spot Sample	Quarterly	
	2-4 D	0.0001 mg/l	Spot Sample	Quarterly	

**Table S4.6 Landfill gas in external monitoring boreholes – limits and monitoring requirements**

Monitoring point Ref. /description	Parameter	Limit (including units) *	Monitoring frequency	Monitoring standard or method
All peripheral landfill gas monitoring boreholes identified on drawing No.1168.GPM.	Methane	1 %v/v	Weekly	
	Carbon Dioxide	1.5 %v/v	Weekly	
	Oxygen	no limit	Weekly	
On-site weather station	Atmospheric pressure	-	Continuous	

\* - The limits specified take account of the agreed background concentrations as detailed in the application

**Table S4.7 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 <sup>2</sup> /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 <sup>2</sup> /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 S4.8 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
Gas collection system as shown on Drawing Reference no. 755487-C-06	Methane Carbon Dioxide Oxygen Carbon Monoxide Atmospheric pressure Differential pressure Carbon monoxide Gas flow rate	Monthly or as otherwise agreed in writing with the Environment Agency	To be agreed in writing with the Environment Agency.	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
First EMS unit as shown Drawing Entitled 'Bryn Posteg Landfill Gas Electricity Unit' dated 02/03/05	Trace Gas Analysis Methane Carbon Dioxide Oxygen Gas flow rate	Annually Continuous when operational		

Table S4.9 Leachate- other monitoring requirements				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Existing: LCP1, LCP2, LCP3, LCP6, LCP7 and LCP8  Proposed in future phases: One of RLMP9A (x2) One of RLMP9B (x2) One of RLMP9C (x2) One of RLMP9D (x2)  As detailed in plan No. 1168.GPM.MN06C				
	Cadmium	6 monthly		
	Chromium	6 monthly		
	Copper	6 monthly		
	Zinc	6 monthly		
	Lead	6 monthly		
	Nickel	6 monthly		
	Cyanide	6 monthly		
	pH	Monthly		
	Full List I analysis	Annually		

Table S4.10 Particulate matter in ambient air - limits and monitoring requirements					
Monitoring Point Ref. /Description	Parameter	Limit (Including Unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
Perimeter of installation adjacent to Valley View as shown on Plan No. 1168.GPM.MN07	Particulate matter	200 mg/m <sup>2</sup> /day	-	Quarterly and when a new phase of the site is being constructed.	To be agreed in writing by the Agency.
Perimeter of installation adjacent to Pant, Rhoswen as shown on Plan No. 1168.GPM.MN07	Particulate matter	200 mg/m <sup>2</sup> /day	-	When construction activities are taking place dust monitoring shall take place continuously.	To be agreed in writing by the Agency
Perimeter of installation adjacent to Penbryn as shown on Plan No. 1168.GPM.MN07	Particulate matter	200 mg/m <sup>2</sup> /day	-		To be agreed in writing by the Agency.

Table S4.11 Groundwater – other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Monitoring Points as shown on Drawing No. 2 as detailed within the application Boreholes:- BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Water Level (mAOD)	Weekly	Spot Sample	-
	pH	Monthly	Spot Sample	-
	Temperature (°C)	Quarterly	Spot Sample	-
	Electrical conductivity	Monthly	Spot Sample	-
	Dissolved oxygen	Quarterly	Spot Sample	-
	Sulphate (mg/l)	Monthly	Spot Sample	-
	Total alkalinity (mg/l) (as Ca CO <sub>3</sub> at pH4.5)	Quarterly	Spot Sample	-
	PAH	Quarterly	Spot Sample	-
	BTEX	Annually	Spot Sample	-
	K (mg/l)	Quarterly	Spot Sample	-
	Ca (mg/l)	Quarterly	Spot Sample	-
	Mg (mg/l)	Quarterly	Spot Sample	-
	Fe (mg/l)	Quarterly	Spot Sample	-
	Cr (mg/l)	Quarterly	Spot Sample	-
	Cu (mg/l)	Quarterly	Spot Sample	-
	Pb (mg/l)	Quarterly	Spot Sample	-
	Bicarbonate HCO <sub>3</sub> (mg/l)	Quarterly	Spot Sample	-
	Nitrate (mg/l)	Quarterly	Spot Sample	-
	Arsenic (mg/l)	Quarterly	Spot Sample	-
	Cyanide (mg/l)	Quarterly	Spot Sample	-
	Mercury (mg/l)	Quarterly	Spot Sample	-
	Antimony (mg/l)	Quarterly	Spot Sample	-
	Selenium (mg/l)	Quarterly	Spot Sample	-
	Manganese (mg/l)	Quarterly	Spot Sample	-
	Silver (mg/l)	Quarterly	Spot Sample	-
	Phenol	Quarterly	Spot Sample	-
	Na (mg/l)	Quarterly	Spot Sample	-
	List I substances identified to be present within the leachate Annually	Annually	Spot Sample	Method: Broadscan GCMS initially, followed by any substance detected then subsequently analysed for to determine it's concentration

## 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 point	Reporting period	Period begins
Oxides of Nitrogen (Nox)	LG- Landfill Gas Flare	1 <sup>st</sup> year – 6 monthly thereafter Annual	From permit issue
Carbon Monoxide (CO)	LG- Landfill Gas Flare	Annual	On variation issue
Total Volatile Organic Compounds (VOC's)	LG- Landfill Gas Flare	Annual	On variation issue
Non Methane Volatile Organic Compounds (NMVOC's)	LG- Landfill Gas Flare	Annual	On variation issue
SOx	LG- Landfill Gas Flare	1 <sup>st</sup> year – 6 monthly thereafter Annual	On variation issue
HCl	LG- Landfill Gas Flare	Annually	On variation issue
CO <sub>2</sub>	LG- Landfill Gas Flare	Annually	On variation issue
Dioxins	LG- Landfill Gas Flare	Annually	On variation issue
Dissolved Oxygen	P1 & P2	Quarterly	On variation issue
Ammoniacal Nitrogen (Mg/l)	P1 & P2	Quarterly	On variation issue
Suspended Solids	P1 & P2	Quarterly	On variation issue
BOD	P1 & P2	Quarterly	On variation issue
Water Flow	P1 & P2	Quarterly	On variation issue
pH	P1 & P2	Quarterly	On variation issue
Temperature	P1 & P2	Quarterly	On variation issue
Electrical Conductivity	P1 & P2	Quarterly	On variation issue
Chloride	P1 & P2	Quarterly	On variation issue
COD	P1 & P2	Quarterly	On variation issue
Hydrocarbons	P1 & P2	Quarterly	On variation issue
List I substances identified to be present within the leachate	P1 & P2	6 monthly	On variation issue



Ammoniacal Nitrogen	LD	Quarterly	On variation issue
Suspended Solids	LD	Quarterly	On variation issue
COD	LD	Quarterly	On variation issue
Sulphate	LD	Quarterly	On variation issue
Soluble CH <sub>4</sub>	LD	Quarterly	On variation issue
Oils	LD	Quarterly	On variation issue
pH	LD	Quarterly	On variation issue
Temperature	LD	Quarterly	On variation issue
List I substances identified to be present within the leachate	LD	6 monthly	On variation issue
Water Level (mAOD)	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Quarterly	On variation issue
pH	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Quarterly	On variation issue
Ammoniacal Nitrogen (mg/l)	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Quarterly	On variation issue
Cadmium (mg/l)	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Quarterly	On variation issue
Chloride (mg/l)	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Quarterly	On variation issue
Nickel (mg/l)	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Quarterly	On variation issue
Toluene	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Quarterly	On variation issue
Xylene	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Quarterly	On variation issue
Zinc (mg/l)	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Quarterly	On variation issue
Ethylbenzene	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Quarterly	On variation issue
Mecoprop	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Quarterly	On variation issue
2-4 D	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Quarterly	On variation issue
Temperature (°C)	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Quarterly	On variation issue

Electrical conductivity	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Quarterly	On variation issue
Dissolved oxygen	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Quarterly	On variation issue
Sulphate (mg/l)	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Quarterly	On variation issue
Total alkalinity (mg/l) (as Ca CO <sub>3</sub> at pH4.5)	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Quarterly	On variation issue
PAH	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Quarterly	On variation issue
BTEX	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Annually	On variation issue
Phenol	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Quarterly	On variation issue
Na (mg/l)	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Quarterly	On variation issue
K (mg/l)	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Quarterly	On variation issue
Ca (mg/l)	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Quarterly	On variation issue
Mg (mg/l)	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Quarterly	On variation issue
Fe (mg/l)	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Quarterly	On variation issue
Cr (mg/l)	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Quarterly	On variation issue
Cu (mg/l)	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Quarterly	On variation issue
Pb (mg/l)	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Quarterly	On variation issue
List I substances identified to be present within the leachate	BH1/ 1999, BH2 A/03, BH4 A/03, BH6/ 03, BH8 /03, BH9 /03, BH10 /03, BH11 /03, BH107	Annually	On variation issue

Deposited Dust (BS1747) Units: (mg/m <sup>2</sup> /day)	Monitoring point 1, Monitoring point 2, Monitoring point 3	Quarterly and when a new phase of the site is being constructed	On variation issue
Methane	All Peripheral Landfill Gas monitoring boreholes identified on drawing No. 1168.GPM.MN01	Quarterly	On variation issue
Carbon Dioxide	All Peripheral Landfill Gas monitoring boreholes identified on drawing No. 1168.GPM.MN01	Quarterly	On variation issue
Oxygen	All Peripheral Landfill Gas monitoring boreholes identified on drawing No. 1168.GPM.MN01	Quarterly	On variation issue
Atmospheric Pressure	All Peripheral Landfill Gas monitoring boreholes identified on drawing No. 1168.GPM.MN01	Quarterly	On variation issue
Cadmium	LCP1, LCP2, LCP3, LCP6, LCP7 and LCP8 One of RLMP9A (x2), One of RLMP9B (x2) One of RLMP9C (x2), One of RLMP9D (x2)	6 monthly	On variation issue
Chromium	LCP1, LCP2, LCP3, LCP6, LCP7 and LCP8 One of RLMP9A (x2), One of RLMP9B (x2) One of RLMP9C (x2), One of RLMP9D (x2)	6 monthly	On variation issue
Copper	LCP1, LCP2, LCP3, LCP6, LCP7 and LCP8 One of RLMP9A (x2), One of RLMP9B (x2) One of RLMP9C (x2), One of RLMP9D (x2)	6 monthly	On variation issue
Zinc	LCP1, LCP2, LCP3, LCP6, LCP7 and LCP8 One of RLMP9A (x2), One of RLMP9B (x2) One of RLMP9C (x2), One of RLMP9D (x2)	6 monthly	On variation issue
Lead	LCP1, LCP2, LCP3, LCP6, LCP7 and LCP8 One of RLMP9A (x2), One of RLMP9B (x2) One of RLMP9C (x2), One of RLMP9D (x2)	6 monthly	On variation issue
Nickel	LCP1, LCP2, LCP3, LCP6, LCP7 and LCP8 One of RLMP9A (x2), One of RLMP9B (x2) One of RLMP9C (x2), One of RLMP9D (x2)	6 monthly	On variation issue
Cyanide	LCP1, LCP2, LCP3, LCP6, LCP7 and LCP8 One of RLMP9A (x2), One of RLMP9B (x2) One of RLMP9C (x2), One of RLMP9D (x2)	6 monthly	On variation issue
pH	LCP1, LCP2, LCP3, LCP6, LCP7 and LCP8 One of RLMP9A (x2), One of RLMP9B (x2) One of RLMP9C (x2), One of RLMP9D (x2)	Quarterly	On variation issue
Leachate Head	Leachate levels shall be monitored at the abstraction point for all phases and two additional points within each new phase.	Quarterly	On variation issue
Full List I substances	LCP1, LCP2, LCP3, LCP6, LCP7 and LCP8 One of RLMP9A (x2), One of RLMP9B (x2) One of RLMP9C (x2), One of RLMP9D (x2)	Annually	On variation issue

**Table S5.2: Annual production/treatment**

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

**Table S5.3 Performance Parameters**

<b>Parameter</b>	<b>Frequency of assessment</b>	<b>Annual total</b>	<b>Unit</b>
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**

<b>Media/parameter</b>	<b>Reporting Format</b>	<b>Date of Form</b>
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	-
Sewer	Form Sewer 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	-
Particulate matter	Form Particulate 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 Sundorne Products (Llanidloes) Ltd

## 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