

## **Permit with introductory note**

The Environmental Permitting (England & Wales) Regulations 2010

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Infinis (Re-Gen) Limited

Tir John Landfill Gas Utilisation Plant  
Compound  
Fabian Way  
Port Tennant  
Swansea  
SA7 9XT

Permit number

EPR/BP3738LS

# **Tir John Landfill Gas Utilisation Plant Compound Permit number EPR/BP3738LS**

## **Introductory note**

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

The main features of the permit are as follows.

Tir John Gas Utilisation Plant is operated by Infinis (Re-Gen) Limited. The installation is located adjacent to the Tir John Landfill, Fabian Way, Port Tennant, Swansea. It receives landfill gas from the Tir John Landfill and the closed Tir John Landfill. Tir John Landfill Site is operated by the City and County of Swansea Limited in accordance with an EPR Installation's Permit for the operational "Phase 2" landfill (Permit number LP3635EY) and an EPR Waste Operations permit for the closed landfill (permit number EPR/JB3597TN).

The installation is located adjacent to the southern border of Tir John Landfill. The installation comprises of a compound area with two engines that each generate approximately 1MW of electricity per hour (which approximates to 2.6MW thermal input each), a 1,000m<sup>3</sup>/hr flare, associate storage tanks, transformers and buildings. The installation receives landfill gas from pipes connected to the landfill site's gas extraction system. The landfill gas is injected into the engines, which generate power to produce electricity. The electricity passes to transformers where its voltage is increased, and it is then sent by cables to the national grid.

The engines operate on a continuous basis and under normal operations will be operational without the flare. The flare is located adjacent to the engines and is available on automated standby to burn excess landfill gas in the event of a shut down of the engines or to combust excess gas which is not of sufficient quality to utilise for electricity production. Engines may be shut down as a result of either planned maintenance or repairs.

The main environmental consideration of the permit is to control the aerial emissions from the engine exhausts and the flare. The engines will use lean mixture combustion control which ensure the correct air to fuel ratio under all operating conditions for minimal emissions.

The installation is approximately 3km east of Swansea town centre and approximately 3km north of

Swansea port and docks. The closest environmental receptor to the site is the Crymlyn Bog SAC.

Following a Natural Resources Wales permit review a number of improvements to the current permit have been identified. This consolidated permit :-

- standardises some of the monitoring requirements to correspond with other Gas Utilisation permits;
- includes additional monitoring requirements in accordance with guidance & site specific risks;

- Includes a new improvement condition to address Natural Resources Wales comments on a recent Air Quality submission submitted by the Operator in respect of changes to the landfill and changes in the configuration of the gas utilisation plant engines.
- This variation incorporates the changes required by the Industrial Emissions Directive. This includes the amendment of several permit conditions relating to notifications, and also includes the addition of a condition relating to a requirement for monitoring of groundwater and soil.

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

<b>Status log of the permit</b>		
<b>Description</b>	<b>Date</b>	<b>Comments</b>
Application BP3738LS	Duly made 30/03/06	
Additional information requested	Schedule 4 19/10/06	
Permit determined	22/12/06	
Variation notice RP3431MQ issued	30/01/07	
Natural Resources Wales initiated variation determined EPR/BP3738LS/V003	12/06/13	Variation to implement the changes introduced by IED
Natural Resources Wales initiated variation determined EPR/BP3738LS/V004	Issued: 28/01/2014	Varied and consolidated permit issued

<b>Other Part A installation permits relating to this installation</b>		
<b>Operator</b>	<b>Permit number</b>	<b>Date of issue</b>
The City and County Council of Swansea	LP3536EY	12/10/07

End of introductory note

# Permit

The Environmental Permitting (England and Wales) Regulations 2010

**Permit number**  
**EPR/BP3738LS**

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/BP3738LS/V004 authorising,

**Infinis (Re-Gen) Limited** (“the operator”),  
whose registered office is

**First Floor**  
**500 Pavilion Drive**  
**Northampton Business Park**  
**Northampton**  
**NN4 7YJ**

company registration number **00151665**

to operate an installation at

**Tir John Landfill Gas Utilisation Plant Compound**  
**Fabian Way**  
**Port Tennant**  
**Swansea**  
**SA7 9XT**

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

Name	Date
	<b>28/01/2014</b>

Eirian Macdonald

Authorised on behalf of Natural Resources Wales

# Conditions

## 1 Management

### 1.1 General management

1.1.1 The operator shall manage and operate the activities:

- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances closure and those drawn to the attention of the operator as a result of complaints; and
- (b) using sufficient competent persons and resources.

1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.

1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

### 1.2 Energy efficiency

1.2.1 The operator shall:

- (a) take appropriate measures to ensure that energy is used efficiently in the activities;
- (b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
- (c) take any further appropriate measures identified by a review.

### 1.3 Efficient use of raw materials

1.3.1 The operator shall:

- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
- (b) maintain records of raw materials and water used in the activities;
- (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
- (d) take any further appropriate measures identified by a review.

### 1.4 Avoidance, recovery and disposal of wastes produced by the activities

1.4.1 The operator shall take appropriate measures to ensure that:

- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and

- (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
  - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.
- 1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

## **2 Operations**

### **2.1 Permitted activities**

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

### **2.2 The site**

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

### **2.3 Operating techniques**

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by Natural Resources Wales
- 2.3.2 If notified by Natural Resources Wales that the activities are giving rise to pollution, the operator shall submit to Natural Resources Wales for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by Natural Resources Wales
- 2.3.2 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.3 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
- (a) the nature of the process producing the waste;
  - (b) the composition of the waste;
  - (c) the handling requirements of the waste;
  - (d) the hazardous property associated with the waste, if applicable; and
  - (e) the waste code of the waste.
- 2.3.4 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

## **2.4 Improvement programme**

- 2.4.1 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 Natural Resources Wales.
- 2.4.2 Except in the case of an improvement which consists only of a submission to Natural Resources Wales, the operator shall notify Natural Resources Wales within 14 days of completion of each improvement.

## **3 Emissions and monitoring**

### **3.1 Emissions to water, air or land**

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

### **3.2 Emissions of substances not controlled by emission limits**

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
  - (a) if notified by Natural Resources Wales that the activities are giving rise to pollution, submit to Natural Resources Wales for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
  - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by Natural Resources Wales.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

### **3.3 Odour**

3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of Natural Resources Wales, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

3.3.2 The operator shall:

- (a) if notified by Natural Resources Wales that the activities are giving rise to pollution outside the site due to odour, submit to Natural Resources Wales for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
- (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by Natural Resources Wales.

### **3.4 Noise and vibration**

3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of Natural Resources Wales, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

3.4.2 The operator shall:

- (a) if notified by Natural Resources Wales that the activities are giving rise to pollution outside the site due to noise and vibration, submit to Natural Resources Wales for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
- (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by Natural Resources Wales.

### **3.5 Monitoring**

3.5.1 The operator shall, unless otherwise agreed in writing by Natural Resources Wales, undertake the monitoring specified in the following tables in schedule 3 to this permit:

- (a) point source emissions specified in table S3.1; and
- (b) landfill gas – other monitoring requirements specified in table S3.2.

3.5.2 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.

3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by Natural Resources Wales.

## 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 Natural Resources Wales, 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) off-site environmental effects; and
  - (ii) matters which affect the condition of the land and groundwater.

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by Natural Resources Wales.

### 4.2 Reporting

4.2.1 The operator shall send all reports and notifications required by the permit to Natural Resources Wales using the contact details supplied in writing by Natural Resources Wales.

4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to Natural Resources Wales by 31 January (or other date agreed in writing by Natural Resources Wales) 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 the permit including an interpretive review of that data;
- (b) the annual production /treatment data set out in schedule 4 table S4.2; and
- (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.

4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by Natural Resources Wales, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
- (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4 ; and
- (c) giving the information from such results and assessments as may be required by the forms specified in those tables.

- 4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to Natural Resources Wales, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

## 4.3 Notifications

4.3.1 In the event:

- (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
  - (i) inform Natural Resources Wales,
  - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
  - (iii) take the measures necessary to prevent further possible incidents or accidents;
- (b) of a breach of any permit condition the operator must immediately—
  - (i) inform Natural Resources Wales, and
  - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
- (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.

4.3.2 Any information provided under condition 4.3.1 [(a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit,] shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

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

4.3.4 Natural Resources Wales shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

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

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

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

In any other case:

- (a) the death of any of the named operators (where the operator consists of more than one named individual);
- (b) any change in the operator's name(s) or address(es); and
- (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

- (a) Natural Resources Wales shall be notified at least 14 days before making the change; and
- (b) the notification shall contain a description of the proposed change in operation.

4.3.6 Natural Resources Wales shall be given at least 14 days notice before implementation of any part of the site closure plan.

## **4.4 Interpretation**

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately", in which case it may be provided by telephone.

# Schedule 1 - Operations

**Table S1.1 activities**

Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
<b>Directly Associated Activity</b>		
Burning of waste as a fuel	Combustion of landfill gas for the purpose of electricity generation.	Utilisation of landfill gas arising from the Tir John landfill operated by Swansea City Waste Disposal Company Ltd under permits LP3635EY and EAWML 34011. Does not include gas collection and delivery from the landfill site, treatment of collected condensate or the gas flare.
Landfill gas flaring	Flaring of landfill gas for disposal in a high temperature enclosed flare	Landfill gas arising from the landfill
Oil storage	Storage of oil for operation of plant and equipment	Oil storage tanks

**Table S1.2 Operating techniques**

Description	Parts	Date Received
Application	The response to section 2.1, excluding 2.1.3 and 2.1.5, and 2.2 in the Application.	30/03/06
Response to Schedule 4 Notice dated 16 <sup>th</sup> October 2006	Golder Associates Report "Report on the Schedule 4 Request for further information – Tir John Landfill Gas Utilisation Plant Compound" – report reference: 05569384/516/A.0, Dated: Nov 2006	22 <sup>nd</sup> November 2006
Improvement Condition submission	Report "Improvement Programme IC1, IC2, IC3a, IC3b and IC3c – PPC Permit BP 3738LS – Tir John Landfill Gas Utilisation Plant", Dated: February 2007	February 2007
Site Protection Monitoring Plan	"Design of Site Protection Monitoring Programme for Tir John Gas Compound" Dated: February 2007	February 2007
Updated Atmospheric Dispersal Modelling Assessment – Addendum to Landfill Gas Risk Assessment	Golder Associates Report: "Tir John Gas Utilisation Plant – Atmospheric Dispersal Modelling Assessment", report reference: 13514270076.500/A.0 – dated: April 2013	19 <sup>th</sup> December 2013
Habitats Assessment, Addendum to Air Modelling Assessment – Addendum to Landfill Gas Risk Assessment.	Golder Associates Report: "Habitats Assessment - Addendum to Air Modelling Assessment for the Tir John Landfill Site" dated May 2014	5 <sup>th</sup> June 2014

**Table S1.3 Improvement programme requirements**

<b>Reference</b>	<b>Requirement</b>	<b>Date</b>
1	The operator shall replace the sampling port covers on both engine exhaust emission sampling points, within the deadline specified.	1 <sup>st</sup> April 2016

## Schedule 2 - Waste types, raw materials and fuels

**Table S2.1 Raw materials and fuels**

<b>Raw materials and fuel description</b>	<b>Specification</b>
Landfill Gas	Arising from the landfill

## Schedule 3 – Emissions and monitoring

<b>Table S3.1 Point source emissions to air – emission limits and monitoring requirements</b>						
<b>Emission point ref. &amp; location</b>	<b>Parameter</b>	<b>Source</b>	<b>Limit (including unit)</b>	<b>Reference period</b>	<b>Monitoring frequency</b>	<b>Monitoring standard or method</b>
A1	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>x</sub> )	Burning Landfill Gas as a fuel	650 mg/m <sup>3</sup>	Hourly mean	Annually	In accordance with LFTGN 08 Permanent sampling access not required
	Carbon Monoxide (CO)		1500 mg/m <sup>3</sup>			
	Total Volatile Organic Compounds (VOCs)		1750 mg/m <sup>3</sup>			
A2	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>x</sub> )	Burning Landfill Gas as a fuel	650 mg/m <sup>3</sup>	Hourly mean	Annually	In accordance with LFTGN 08 Permanent sampling access not required
	Carbon Monoxide (CO)		1500 mg/m <sup>3</sup>			
	Total Volatile Organic Compounds (VOCs)		1750 mg/m <sup>3</sup>			
A3	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>x</sub> )	Flaring excess gas from landfill	150 mg/Nm <sup>3</sup>	Hourly mean	Annually	In accordance with LFTGN 05 Permanent sampling access not required
	Carbon Monoxide (CO)		100 mg/Nm <sup>3</sup>			
	Total Volatile Organic Compounds (VOCs)		10 mg/Nm <sup>3</sup>			
Emission point A4 (to be installed at a location to be agreed with NRW).	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>x</sub> )	Burning Landfill Gas as a fuel	500 mg/m <sup>3</sup>	Hourly mean	Within 6 months of engine being commissioned, annually thereafter	In accordance with LFTGN 08 Permanent sampling access not required
	Carbon Monoxide (CO)		1400 mg/m <sup>3</sup>			

**Table S3.1 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
	Total Volatile Organic Compounds (VOCs)		1000 mg/m <sup>3</sup>			

1. All emissions are reported under the following conditions. Temperature 0°C (273K), pressure 101.3 kPa, and oxygen 5% (dry gas).

2. Annual monitoring of flares is only required when the flare operates in excess of 10% of the time, taken on an annual assessment period.

**Table S3.2 Landfill Gas – other monitoring requirements**

Emission point ref. & location	Parameter	Source	Monitoring frequency	Monitoring standard or method	Other Specifications
Emission points: A1, A2 & A4	Nitrogen Oxides (NO <sub>x</sub> )	Landfill Gas Engines	Quarterly	Portable combustion gas analyser in accordance with Agency Guidance LFTGN08.	Frequency may be increased depending on concentrations of the inlet gases and the individual engine drift rate. Testing frequency to be reviewed annually by the operator and reported to the Agency in accordance with condition 4.2.2
Emission points: A1, A2 & A4	Carbon Monoxide (CO)	Landfill Gas Engines	Quarterly	Portable combustion gas analyser in accordance with Agency Guidance LFTGN08.	
Emission point A3	Temperature	Landfill Gas Flare	Weekly temperature check when flare in operation.		Weekly temperature check when flare in operation.
Inlet to landfill gas treatment system	Trace Gas suite	Landfill Gas Collection System	Annually	In accordance with Agency Guidance LFTGN04	The concentration of trace gas components shall be assessed against the assumptions made in the Landfill gas risk assessment and air dispersion modelling.
Inlet to landfill gas treatment system	Methane (%)	Landfill Gas Collection System	Continuous		
	Carbon Dioxide (%)				
	Oxygen (%)				
	Suction Pressure				
Inlet to landfill gas treatment system	Bulk Gas Flow Treated (m <sup>3</sup> /hr)				
	Bulk Gas Temperature		Weekly		

1. All emissions are reported under the following conditions. Temperature 0°C (273K), pressure 101.3 kPa, and oxygen 5% (dry gas).

2. Annual monitoring of flares is only required when the flare operates in excess of 10% of the time, taken on an annual assessment period.

## Schedule 4 - Reporting

**Table S4.1 Reporting of monitoring data**

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Nitrogen Oxides (NO <sub>x</sub> ), Carbon Monoxide (CO), Total Volatile Organic Compounds (VOC's).	A1, A2, A3, A4	Every 12 months	1 <sup>st</sup> January
Nitrogen Oxides (NO <sub>x</sub> ) & Carbon Monoxide (CO)	A1, A2 & A4	Quarterly	1 <sup>st</sup> January
Trace Gas Analysis	Inlet to landfill gas treatment system	Every 12 months	1 <sup>st</sup> January
Total Bulk Gas Flow (m <sup>3</sup> /hr)	Inlet to landfill gas treatment system	Quarterly	1 <sup>st</sup> January
Methane concentration (%) – Weekly value	Inlet to landfill gas treatment system	Quarterly	1 <sup>st</sup> January
Suction (mb) – Weekly value	Inlet to landfill gas treatment system	Quarterly	1 <sup>st</sup> January

**Table S4.2: Annual production/treatment**

Parameter	Units
Landfill gas: combustion in flares; combustion in gas engines; Other methods of gas utilisation.	Normalised cubic metres/year
Landfill gas engine operational period	Hrs (of each landfill gas engine)
Landfill gas flare operational period	Hrs (of each landfill gas flare)
Total energy generated	KWh

**Table S4.3 Performance parameters**

Parameter	Frequency of assessment	Units
Energy used	Annually	KWh of electricity
Downtime of each gas engine	Annually	Downtime (Hrs.)/ Available Operational Time (Hrs.)

**Table S4.4 Reporting forms**

Media/parameter	Reporting format	Date of form
Air	Form air 1 or other form as agreed in writing by Natural Resources Wales	05/12/06
Other performance indicators	Form performance 1 or other form as agreed in writing by Natural Resources Wales	05/12/06

# Schedule 5 - Notification

These pages outline the information that the operator must provide.

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

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

## Part A

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

<b>(a) Notification requirements for any activity that gives rise to an incident or accident which significantly affects or may significantly affect the environment</b>	
<b>To be notified Immediately</b>	
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>(b) Notification requirements for the breach of a permit condition</b>	
<b>To be notified immediately</b>	
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	

<b>Time periods for notification following detection of a breach of a limit</b>	
<b>Parameter</b>	<b>Notification period</b>


**(c) In the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment:**

<b>To be notified immediately</b>	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

**Part B - to be submitted as soon as practicable**

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

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

\* authorised to sign on behalf of the operator

# Schedule 6 - Interpretation

“*accident*” means an accident that may result in pollution.

“*application*” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“*authorised officer*” means any person authorised by Natural Resources Wales 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.

“*disposal*”. Means any of the operations provided for in Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“*emissions to land*” includes emissions to groundwater.

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

“*emissions of substances not controlled by emission limits*” means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission or background concentration limit..

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

“*hazardous property*” has the meaning given in Schedule 3 of the Hazardous Waste (England and Wales) Regulations 2005 No.894 and the Hazardous Waste (Wales) Regulations 2005 No. 1806 (W.138).

“*Industrial Emissions Directive*” means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions

“*MCERTS*” means the Environment Agency’s Monitoring Certification Scheme.

“*quarter*” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

“*recovery*” means any of the operations provided for in Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“*Waste Framework Directive*” or “*WFD*” means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste

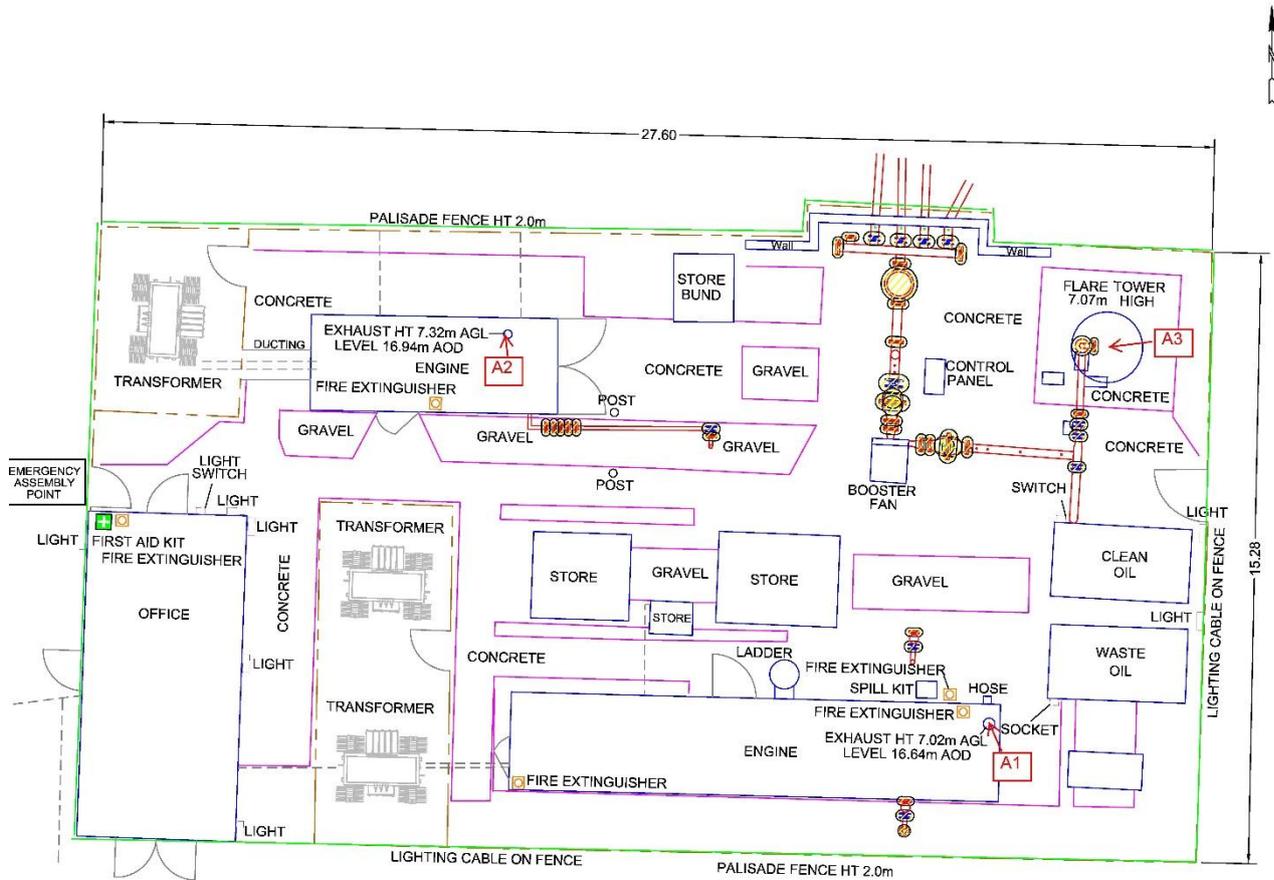
“*year*” means calendar year ending 31 December.

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:

- (a) in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels, 6% dry for solid fuels; and/or
- (b) in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

# Schedule 7 - Site plan



END OF PERMIT