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| NO. OF PAGES | 30 |

ASIANTAETH YR AMGYLCHEDD CYMRU
ENVIRONMENT AGENCY WALES



# ENVIRONMENTAL PROTECTION ACT 1990. SECTION 37

# WASTE MANAGEMENT LICENCE NOTICE OF MODIFICATION

| | |
|---|---|
| **LICENCE REF No:- EAWML/37083 (YMBC/2)**<br><br>**LICENCE HOLDER:-**<br><br>**Cwmni Gwastraff Mon Arfon Cyfyngedig**<br>**Barclays Bank Chambers**<br>**5-7 Bangor Street**<br>**Caernarfon**<br>**Gwynedd, Ll55 1AE**<br>**Company Registration - 02666046** | **FACILITY TYPE:- Landfill Site**<br><br>**LICENSED FACILITY:-**<br><br>**Penhesgyn Gors Landfill (Area 3)**<br>**Penhesgyn Gors Farm**<br>**Llansadwrn**<br>**Ynys Mon**<br>**LL59 5RY**<br><br>**SH 53376 74187** |

**WHEREAS** a disposal licence was issued (now to be treated as a waste management licence) on the 23 November 1993 in pursuance of its powers under Part I of the Control of Pollution Act 1974, by Isle of Anglesey Borough Council relating to the disposal of controlled waste on land at **Penhesgyn Gors, Llansadwrn, Ynys Mon.**

**AND WHEREAS** on the 1st April 1996 the powers and duties of all waste regulation authorities in England and Wales transferred to the Environment Agency ("the Agency") by virtue of Section 2 of the Environment Act 1995

**AND WHEREAS** on 20 March 1998, 30 June 1999 and 30 April 2001 the Environment Agency modified the conditions of the said licence pursuant to Section 37 (1)(a) of the Environmental Protection Act 1990

**NOTICE IS HEREBY GIVEN** that the Agency modifies the conditions of the said licence in accordance with Section 37(1)(a) of the Environmental Protection Act 1990 and as set out in the Schedule attached to this notice.

Signed : SRWilliams

Dated : 4th March 2005

Name: **Sian Williams**
**Team Leader Environment Management**

This modification shall take effect on **7th March 2005** at 00.01 hours

## YOUR ATTENTION IS DRAWN TO THE RIGHTS OF APPEAL AT THE END OF THIS NOTICE.

ASIANTAETH YR
AMGYLCHEDD CYMRU
ENVIRONMENT
AGENCY WALES

ENVIRONMENT AGENCY

# Modification Conditions - Landfill Gas Management

**Modification to manage risks arising from landfill gas generation and emissions, including odours.**

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Licence number
EAWML/37083

**Penhesgyn Gors Landfill (area 3)**
**Penhesgyn Gors Farm**
**Llansadwrn**
**Ynys Mon**
**LL59 5RY**

## SCHEDULE – CONDITIONS RELATING TO THIS MODIFICATION

Modification of conditions under section 37 (1)(a) as follows:

## Add New Conditions:

**B** **Working Plan and Phasing**

**B.2.1** The prior written notice shall be accompanied by a copy of the proposed changes, and by a written assessment of the effect that implementing the proposed change would have on the risk posed by the site to human health and the environment

**B.2.2** The Licence Holder shall provide up to 6 additional copies of the proposed change and supporting risk assessment to the Agency, when required by the Agency in writing.

**B.2.3** The proposed change shall not be implemented unless it has been agreed in writing by the Agency. Following agreement, the Licence Holder shall give the Agency prior written notification of the implementation date of the change, and from that date the changed section shall be deemed to replace the previous version of that documentation.

## Delete Conditions

**Z** **Landfill Gas**

**Landfill Gas Control Conditions**

**Z.1** No waste shall be deposited at the site unless 6 months prior to initial waste input primary monitoring boreholes are placed around the perimeter of the disposal site to the full depth of the emplaced refuse as shown on Figure 5 of the agreed working plan. These boreholes shall be spaced at intervals to be determined by agreement with the Waste Regulation Authority. The boreholes shall be placed in virgin land (not in refuse) within 5 metres of the boundary of the site. Copies of the borehole logs shall be supplied to the Waste Regulation Authority on completion of drilling.

**Z.2** Where buildings or services are within 250 metres of the perimeter of the site a second series of monitoring points should be located near to the building/s or services but not closer than half way between the primary monitoring boreholes and the buildings or services.

## Gas Venting

**Z.3** Gas wells shall be progressively constructed within the waste. The wells should be located in agreement with the Waste Regulation Authority. Construction of the gas wells and retrospective gas wells shall be as detailed in the agreed Working Plan Figure 7.

**Z.4** Monitoring of primary and secondary boreholes (as identified in Section 7.2 and 7.3 respectively of the Working Plan) and also of passive gas vents shall be carried out at regular intervals not less frequently than once per month or as otherwise agreed in writing from the Waste Regulation Authority.

The main substances to be tested for on a regular basis are methane, Oxygen and Carbon Dioxide.

**Z.5** The equipment to be used to determine gas concentrations in the monitoring boreholes shall comply with the following minimum specification.

The instrument(s) must be

a. to the approved safety specification (BS 6020 1984 parts 1-4)

b. robust and waterproof

c. of simple and clear operation so that they may, if necessary, be used by non-technical personnel.

d. Reliable and have a long lasting power supply (i.e. approximately 4 hours continuous operation).

e. Give readings in % Methane (CH4) by volume, % LEL (10% and 100% scales), % Oxygen (O2) by volume, and preferably % Carbon Dioxide (CO2) by volume.

f. Calibrated for Methane in air

g. Maintained in good condition or replaced when faulty and must be checked against the standard mixture of calibration gases in accordance with the manufacturers specification.

(NB LEL stands for Lower Explosive Limit)

**Z.6** The landfill gas measurements recorded shall be compared to the values defined below.

(a). **Primary Trigger Concentrations:** for gas concentrations measured in the primary monitoring boreholes (by volume in air).

Methane not more than 0.25% (2500ppm) or Carbon Dioxide not more than 2.00% (20,000 ppm) or Hydrogen Sulphide not more than 0.0015% (15ppm) and Oxygen not less than 18%

If landfill gas containing quantities of any of these substances in excess of these Trigger Concentrations is allowed to escape beyond the boundary of the landfill site a potential threat to the surrounding environment will be deemed to exist which, if allowed to continue unchecked, could become a serious threat to the amenities of the surrounding environment and/or a danger to public health.

(b) **Secondary Trigger Concentrations:** for gas concentrations measured in the secondary monitoring boreholes (by volume in air).

As for Primary Trigger Concentrations except Methane not more than 0.1% (1000ppm).

(c) Where the results of gas monitoring reveals that landfill gas is present near to or outside the boundary in excess of the primary or secondary trigger concentrations then the following action shall be taken

(i) an appropriate gas control scheme shall be installed as soon as possible but in any case within 3 months

(ii) and a survey of neighbouring land and property shall be instituted immediately.

**Z.7** If flammable gas is found to be present in any building or service at a concentration in excess of 500 ppm (approximately 1% LEL) the Waste Regulation Authority must be informed immediately and the contingency arrangements described in Conditions contained in Section EE must be implemented without delay.

**Z.8** If flammable gas is found to be present in any building or service at a concentration in excess of 1% gas by volume (approximately 20% LEL) the emergency arrangements described in Section EE must be implemented at once.

**Z.9** If during the course of said gas monitoring, concentrations of flammable gas above 20% Lower Explosive Level limit or Carbon Dioxide in excess of 0.5% by volume is detected in any building, property, duct or statutory undertakers service, then the Waste Regulation Authority shall be notified immediately by telephone. The situation shall be treated as an emergency and the site's emergency plan implemented as specified by the conditions contained in Section EE of this Licence.

**Z.10** The results of the gas monitoring required by Condition Z.4 of this licence shall be written into the site diary as required to be kept. A true copy of these results shall be forwarded to the Regulation Authority at three monthly intervals.

**Z.11** The parameters to be measured in compliance with Condition Z.4 and recorded in the site diary shall include:

a) Gas Content

i) % Lower Explosive Limit

ii) % Gas in air

iii) % Oxygen

iv) % Carbon Dioxide

b) Date, time, weather conditions, air temperature, state of tip i.e. age of refuse.

c) Gas Pressure

i) within waste

ii) within surrounding strata

iii) barometric pressure

d) Temperature

i) of waste – at various depths

ii) of surrounding gas

iii) of gas being extracted (if applicable)

e) Water Levels

i) within waste including leachate levels

ii) within surrounding strata

f) Staff instruction and training in

i) use of equipment

ii) safety procedures (including entry into confined spaces)

iii) emergency procedures

iv) health of staff (reference asthmatics, procedures when exposed to hazardous materials).

**Z.12** At annual intervals a representative sample of landfill gas will be taken and fully analysed by gas Chromatography to identify all constituent gases within the landfill gas.

**Z.13** If at any time gas levels greater than 1% (20% LEL) flammable gas or 0.5%/1% (lethal level 2.5%) carbon dioxide, by volume in air, are detected in any sub surface monitoring point situated outside the area of waste deposition, then the gas control system shall be deemed to be inadequate. The Waste Regulation Authority shall be informed verbally before the end of the following working day, and this information shall also be confirmed in writing within seven days.

**Z.14** If the gas control system is deemed to be inadequate by virtue of Condition Z.6 of this licence, suitable improvements of additional measures shall be designed and implemented at the earliest practicable time, so as to ensure that gas levels in all sub surface monitoring points outside the area of waste deposited do not exceed 1% flammable gas or 0.5% carbon dioxide by volume in air. The frequency and scope of the gas monitoring programme shall be increased in consultation with the Waste Regulation Authority until the new system has been proved to be adequate.

**Z.15** If any gas borehole or gas well, as required by Conditions Z1-Z3 of this licence, should at any time become unsuitable for sampling, then they shall made suitable to sample or replaced within six weeks from the date that they are first found to be unsuitable.

**Z.16** The landfill gas control system shall be maintained at all times in a condition specified in the agreed Working Plan and described in the statement of operation.

**Z.17** The gas control system shall be inspected not less frequently than once per week, and any damage, mechanical breakdown or extraneous material, including litter or debris, likely to impair its effectiveness shall be rectified immediately. If this cannot be achieved then the Waste Regulation Authority shall be informed immediately by telephone, and any instruction of that Authority for additional gas control and/or monitoring measures shall be implemented immediately.

## Add New Conditions:

**Z** **Landfill gas management systems: landfill gas collection, extraction and disposal or use**

*Provision of landfill gas management system*

Z.1 Within six months of the date of issue of this modification a landfill gas management system shall be provided for each existing cell or phase and subsequently for all new cells & phases the objective of which shall be to collect, extract and dispose of or utilise landfill gas arising from the site in such a way that it does not cause pollution to the environment, harm to human health or serious detriment to the amenities of the locality.

*Design and operational standards for landfill gas management system*

Z.1.1 The landfill gas management system for each cell or phase shall be designed, constructed, operated, maintained and monitored to meet the design and operational standards specified in table **1.1**

Deleted in mod Aug 06

See Mod. attached

| Table 1.1 Design and operational standards for landfill gas management system | | |
|---|---|---|
| a) | Landfill gas management system capacity and extent | The landfill gas management system shall have sufficient capacity and extent to enable the collection, extraction and disposal or use of the landfill gas which is generated at its maximum rate in that cell or phase. |
| b) | Landfill gas collection and extraction system | The landfill gas collection and extraction system shall be designed, constructed and maintained to:<br>i. withstand physical damage from the loading imposed by the waste, and any compaction operations working over the system;<br>ii. be resistant to chemical attack in the landfill internal environment;<br>iii. avoid damage to the engineered containment which may be caused through the installation or loading of the landfill gas management system;<br>iv. control and manage landfill gas condensate. |
| c) | Landfill gas treatment, disposal and utilisation | Except where a landfill gas utilisation system or alternative system of disposal has been implemented and is being operated and maintained in accordance with the other conditions of this modification, landfill gas collected and extracted from each cell or phase shall be treated and disposed of through a landfill gas flaring system. |
| d) | Operation, maintenance and review of landfill gas management system: | i. The landfill gas management system shall be operated and maintained to meet the standards specified in the other conditions of this modification for:<br>• balancing the extraction system; and<br>• limiting emissions from the site, landfill gas flaring system and any landfill gas utilisation system provided.<br>DELETED 4.8.06<br>Telemetry shall be provided and maintained between the specified nominated person and any part of permanent landfill gas system and any landfill gas utilisation system provided, and shall be managed to provide immediate notification to specified nominated person , so as to ensure that failure of the system at any time is notified immediately to the site management.<br>See Mod. attached<br>iii. temperature of the flare, and oxygen and methane in the input gas<br>iv. A review of all component parts of the gas management system shall be carried out on an annual basis, to ensure that the system is continuing to meet its design and performance standards. The first review shall be carried out not more than one year following the date of its commissioning, and subsequent reviews shall be carried out not more than one year following the previous review.<br>v. A written report of each review and its results shall be submitted in writing to the Agency within one calendar month of the review being completed. |
| e) | Action plan for failure of, or damage to components of, the landfill gas flare and any landfill gas utilisation scheme provided. | In the event of detection of a failure of a landfill gas flare or any landfill gas utilisation system provided, or of damage to their components:<br>i. the Agency shall be notified immediately; and<br>ii. the flare or utilisation system shall be repaired or replaced within 12 hours. Time to be based on site specific assessment, unless otherwise agreed in writing by the Agency. |

*Design report on landfill gas management system*

Z.1.2 Prior to the installation of a landfill gas management system in a cell or phase, the licence holder shall submit to the Agency a written design report detailing the proposed engineered landfill gas management system, which shall include the information set out in table **1.2.** Following written agreement by the Agency of the design report, it shall be incorporated into the working plan. No waste shall be deposited in any new cell or phase unless the design report for that cell or phase has been submitted.

**Table 1.2 Details to be included in report on landfill gas management system**

| | | |
|---|---|---|
| a) | Landfill gas management system infrastructure | Description, including design specification and scale drawings and plans, for:<br>i. any additional landfill gas barriers which are to be provided, other than those specified in the existing engineered landfill containment system for that cell or phase;<br>ii. landfill gas collection and extraction pipes;<br>iii. protection systems for landfill gas collection pipes;<br>iv. pumping systems for landfill gas, including any storage systems prior to treatment and disposal or use. |
| b) | Operation of the system | Description of how the landfill gas management system will be:<br>i) operated;<br>ii) maintained in accordance with the manufacturers' or designers' recommendations/ specifications - this shall include a maintenance programme giving frequencies and subjects of inspection, with procedures, responsibilities, actions and deadlines for routine replacement and repair in the event of failed, defective or damaged components. |
| c) | Treatment and disposal or utilisation systems for landfill gas | Description, including design specification and scale drawings and plans, for:<br>i) landfill gas flaring systems;<br>ii) landfill gas power units, where these are to be provided;<br>iii) alternative treatment or disposal systems, where these are to be provided. |

*Construction quality assurance of landfill gas management system*

Z.1.3 Prior to construction of the landfill gas management system for each cell or phase a Construction Quality Assurance Plan covering all elements of the engineered landfill gas management system for that cell or phase shall be submitted in writing to the Agency. No waste shall be deposited in any new cell or phase unless the CQA Plan for that cell or phase has been submitted to the Agency and agreed in writing by the Agency.

Z 1.4 Prior to construction of the landfill gas management system for each cell or phase, details of the identities, relevant qualifications of the personnel who will be providing Quality Assurance of the construction shall be submitted to the Agency.

Z.1.5 The engineered landfill gas management system for each cell or phase shall be constructed and recorded in accordance with the Construction Quality Assurance Plan.

Z 1.6 Changes to the Construction Quality Assurance Plan and quality assurance personnel shall not be implemented unless they have been agreed in writing by the Agency.

Z 1.7 Within 1 month following completion of the landfill gas management system for each cell or phase, the Validation Report on the construction of the engineered landfill gas collection and extraction system for that cell or phase shall be submitted in writing to the Agency.

## Z 2 Monitoring and reporting of landfill gas within the waste (internal landfill gas monitoring)

*Provision of internal landfill gas monitoring system*

Z 2.1 Within six months of the date of issue of this modification, for each cell or phase and for all new cells & phases, an internal landfill gas monitoring system shall be provided in accordance with the following requirements of this condition (unless the landfill gas management system is in place and operational to collect, extract and dispose of or utilise the landfill gas arising from that cell or phase, in accordance with the other conditions of this modification). The objective of the internal landfill gas monitoring system shall be to measure and characterise the landfill gas arisings within that cell or phase, so as to determine when the landfill gas collection, extraction and disposal or utilisation system can be made operational.

*Design and operational standards for internal landfill gas monitoring system*

Z2.2 The installation of the internal landfill gas monitoring system provided within each cell or phase shall be designed, constructed, inspected, maintained, documented and recorded to meet the standards specified in table **2.2** below, unless otherwise agreed in writing by the Agency.

| Table 2.2 Standards for internal landfill gas monitoring system | | |
|---|---|---|
| a) | Design of landfill gas monitoring systems | i. At least two monitoring points shall be installed per hectare of waste or part thereof, with a minimum of four for each cell or phase.<br>ii. The monitoring points shall be evenly distributed within the area of each cell or phase and shall be installed to the full depth of the waste.<br>iii. Each monitoring point shall permit a representative sample of landfill gas to be taken at any time. |
| b) | Construction and installation of landfill gas monitoring systems | i. The installations shall consist of monitoring points containing a rigid HDPE casing of minimum internal diameter of 50mm.<br>ii. The space surrounding the monitoring point casing shall be packed with non-calcareous pea gravel and completed at the surface with a gas tight seal.<br>iii. The monitoring point casing shall consist of manufactured perforated pipe within the response zone of the monitoring point and plain pipe through the gas tight seal.<br>iv. The monitoring point casing shall be completed at the surface with a removable gas tap, suitable for gas sampling, and secure and protected from damage or vandalism .<br>v. Each monitoring point shall be permanently labelled with a unique identification number. |
| c) | Inspection and maintenance of landfill gas monitoring systems | i. Monitoring installations shall be inspected for defects and damage during each routine monitoring exercise.<br>ii. Defects and damage shall be noted in the site diary, remedial measures shall be undertaken as soon as possible and in any case within 1 month of the defect or damage being detected. |
| d) | Records | A record shall be kept in the site diary of all remedial actions undertaken. |

*Design report on internal landfill gas monitoring system*

Z 2.3 Prior to the installation of the internal landfill gas monitoring system in a cell or phase, the licence holder shall submit to the Agency a written design report detailing the proposed landfill gas monitoring system, which shall include the information set out in table **2.3**. Following written agreement by the Agency of the design report, it shall be incorporated into the working plan.

| Table 2.3 Details to be included in design report on internal landfill gas monitoring system | | |
|---|---|---|
| a) | Landfill gas monitoring system infrastructure | Description, including design specification, scale drawings and location plans, for:<br>i. any landfill gas monitoring wells which are to be provided within the waste body;<br>ii. any other system which is to be provided for monitoring landfill gas within the waste body (other than that provided to balance the landfill gas collection and extraction system, and covered by the other conditions of this modification) |
| b) | Operation of the system | Description of how the internal landfill gas monitoring system will be:<br>i) operated; and<br>ii) maintained in accordance with the manufacturers' or designers' recommendations/ specifications - this shall include a maintenance programme giving frequencies and subjects of inspection, with procedures, responsibilities, actions and deadlines for repair and replacement in the event of failed, defective or damaged components. |

*Construction quality assurance of internal landfill gas monitoring systems*

Z 2.4 Prior to construction of any fixed engineered components of the internal landfill gas monitoring system in a cell or phase, a Construction Quality Assurance Plan covering all elements of the internal landfill gas monitoring system for that cell or phase shall be submitted in writing to the Agency. No waste shall be deposited in any new cell or phase unless the CQA Plan for that cell or phase has been submitted to the Agency and agreed in writing by the Agency.

Z 2.5 Prior to construction of the fixed engineered components of the internal landfill gas monitoring system in a cell or phase, details of the identities, relevant qualifications of the personnel who will be providing Quality Assurance of the construction shall be submitted to the Agency.

Z 2.6 The fixed engineered components of the internal landfill gas monitoring system for each cell or phase shall be constructed and recorded in accordance with the Construction Quality Assurance Plan.

Z 2.7 Changes to the Construction Quality Assurance Plan, quality assurance personnel, and detailed method statement shall not be implemented unless they have been agreed in writing by the Agency.

Z 2.8 Within 1 month following completion of any fixed engineered components of the internal landfill gas monitoring system for each cell or phase, the Validation Report on the construction for that cell or phase shall be submitted in writing to the Agency.

*Quality assurance plan for internal monitoring of landfill gas*

Z 2.9 Prior to the commissioning and operation of the internal landfill gas monitoring system, the licence holder shall submit in writing to the Agency a quality assurance plan for the internal monitoring of landfill gas, which shall meet the standards specified in table **2.9** below

| Table 2.9 Standards for quality assurance plan for internal landfill gas monitoring | |
|---|---|
| **Landfill gas monitoring and sampling records** | **Specified standards** |
| a) Quality assurance of monitoring and sampling | i) Monitoring shall only be carried out by suitably competent/qualified staff.<br>ii) Validation of results shall be carried out by a designated quality assurer adequately experienced in landfill gas engineering.<br>iii) Monitoring equipment shall be calibrated and serviced in accordance with the manufacturer's recommendations. |
| b) Making of records | Records shall include the following:<br>i) Determinands monitored/sampled;<br>ii) Specified details of measurements/samples to support analytical and QA requirements; including. dates, times, locations, personnel undertaking monitoring;<br>iii) Results of measurements/sample analyses, with error limits;<br>iv) Interpretation and review of results;<br>v) Validation of accuracy and validity of results, by designated quality assurer. |
| c) Submission of records | A copy of the quality assured records of each monitoring and sampling result shall be submitted to the Agency within 1 month of its being carried out. |

*Internal landfill gas monitoring programme*

Z 2.10 Monitoring of landfill gas within each cell or phase shall be carried out and recorded in accordance with the standards specified in table **2.10** below.

| Table 2.10 Standards for internal landfill gas monitoring and sampling programme | | | |
|---|---|---|---|
| **Landfill gas monitoring determinands** | **Monitoring frequencies** | **Units and accuracy** | **Trigger levels** |
| Methane | Monthly, from starting input of waste | % v/v and to 0.3% | No trigger level –information supporting analyses of methanogenic status of cell or phase |
| Carbon dioxide | Monthly, with methane monitoring | % v/v and to 0.3% | No trigger level –information supporting analyses of methanogenic status of cell or phase |
| Oxygen | Monthly, with methane monitoring | % v/v and to 0.3% | No trigger level –information supporting analyses of methanogenic status of cell or phase |
| Atmospheric pressure | Continuous, with methane monitoring | mbar to 1mbar, and whether rising or falling | No trigger level –information supporting analyses of methanogenic status of cell or phase |

## Z 3 Monitoring and balancing of landfill gas extraction

*Provision of monitoring system for the landfill gas extraction system*

Z 3.1 Within six months of the date of issue of this modification, for each cell or phase and for all new cells or phases, an extraction landfill gas monitoring system shall be provided in accordance with the following requirements of this condition. The objective of the extraction landfill gas monitoring system shall be to monitor the landfill gas being extracted from that cell or phase, and to enable the operation of the landfill gas collection and extraction system to be balanced against the landfill gas generated from that cell or phase.

*Design and operational standards for monitoring landfill gas extraction system*

Z 3.2 The extraction landfill gas monitoring system provided for each cell or phase shall be designed, constructed, inspected, maintained, documented and recorded to meet the standards specified in table **3.2** below, unless otherwise agreed in writing by the Agency.

**Table 3.2 Standards for monitoring landfill gas extraction system**

| | | |
|---|---|---|
| a) | Design of monitoring points for landfill gas extraction | i. At least one monitoring point shall be installed on the well side of the valve for each extraction well or manifold.<br>ii. Each monitoring point shall permit a representative sample of landfill gas to be taken at any time. |
| b) | Construction and installation of monitoring points | Each monitoring point shall be shall be secure and protected from damage or vandalism. |
| c) | Inspection and maintenance of monitoring points | i. Monitoring points shall be inspected for defects and damage during each routine monitoring exercise.<br>ii. Defects and damage shall be noted in the site diary, remedial measures shall be undertaken as soon as possible and in any case within 1 month. |
| d) | Records | A record shall be kept in the site diary of all remedial actions undertaken. |

*Design report on monitoring system for landfill gas extraction system*

Z 3.3 Prior to the installation of the landfill gas extraction system in a cell or phase, the licence holder shall submit to the Agency a written design report detailing the proposed system, which shall include the information set out in table **3.3**. Following written agreement by the Agency of the submission of the design report, it shall be incorporated into the working plan.

| Table 3.3 Details to be included in design report on monitoring system for the landfill gas extraction system | | |
|---|---|---|
| a) | Extraction landfill gas monitoring points design | Description, including design specification, scale drawings and location plans. |
| b) | Operation of the monitoring points | Description of how the monitoring points will be:<br>i) operated; and<br>ii) maintained in accordance with the manufacturers' or designers' recommendations/ specifications - this shall include a maintenance programme giving frequencies and subjects of inspection, with procedures, responsibilities, actions and deadlines for repair and replacement in the event of failed, defective or damaged components. |

*Construction quality assurance of monitoring points for landfill gas extraction system*

Z 3.4 Prior to installation of the extraction landfill gas monitoring points for a cell or phase, a Construction Quality Assurance Plan covering those monitoring points shall be submitted in writing to the Agency. No waste shall be deposited in any new cell or phase unless the CQA Plan for that cell or phase has been submitted to the Agency and agreed in writing by the Agency.

Z 3.5 Prior to installation of the extraction landfill gas monitoring points for a cell or phase, details of the identities, relevant qualifications of the personnel who will be providing Quality Assurance of the installation shall be submitted to the Agency.

Z 3.6 The monitoring wells for each cell or phase shall be installed and recorded in accordance with the Construction Quality Assurance Plan.

Z 3.7 Changes to the Construction Quality Assurance Plan, quality assurance personnel, and detailed method statement shall not be implemented unless they have been agreed in writing by the Agency.

Z 3.8 Within 1 month following completion of the any extraction landfill gas monitoring wells for each cell or phase, the Validation Report on the construction for that cell or phase shall be submitted in writing to the Agency.

*Quality assurance plan for monitoring of landfill gas extraction*

Z 3.9 Prior to the commissioning and operation of the landfill gas collection and extraction system, the licence holder shall submit in writing to the Agency a quality assurance plan for the monitoring of landfill gas extraction, which shall meet the standards specified in table **3.9** below

| Table 3.9 Standards for quality assurance plan for monitoring of the Landfill gas extraction system | | |
|---|---|---|
| **Landfill gas monitoring and sampling records** | | **Specified standards** |
| a) | Quality assurance of monitoring and sampling | i) Monitoring shall only be carried out by suitably competent/qualified staff.<br>ii) Validation of results shall be carried out by a designated quality assurer adequately experienced in landfill gas engineering.<br>iii) Monitoring equipment shall be calibrated and serviced in accordance with the manufacturer's recommendations. |
| b) | Making of records | Records shall include the following:<br>i) Determinands monitored/sampled;<br>ii) Specified details of measurements/samples to support analytical and QA requirements; including. dates, times, locations, personnel undertaking monitoring;<br>iii) Results of measurements/sample analyses, with error limits;<br>iv) Interpretation and review of results;<br>v) Validation of accuracy and validity of results, by designated quality assurer. |
| c) | Submission of records | A copy of the quality assured records of each monitoring and sampling result shall be submitted to the Agency within 1 month of its being carried out. |

*Monitoring programme for landfill gas extraction system*

Z 3.10 Monitoring of landfill gas within the extraction system for each cell or phase shall be carried out and recorded in accordance with the standards specified in table **3.10** below. Variation of monitoring frequencies and / or trigger levels can be dependent on stabilisation and performance profiling of wells and cells. Any proposed changes to the frequencies and / or trigger levels require prior agreement with the Agency and incorporation into the Working Plan. DELETED 4.8.06

See mod attached.

| Table 3.10 Standards for balancing and monitoring of extraction system | | | |
|---|---|---|---|
| **Landfill gas monitoring determinands at each well or manifold (unless stated)** | **Monitoring frequencies** | **Units and accuracies** | **Trigger levels** |
| Methane | Fortnightly from commissioning the extraction system | % ± 0.3% | <20% increase or decrease based on site specific conditions |
| Carbon dioxide | Fortnightly from commissioning the extraction system | % ± 0.3% | No trigger level – information enabling balancing of landfill gas extraction |
| Oxygen | Fortnightly from commissioning the extraction system | % ± 0.1% | >5% at each well |
| Flow rate or suction | Fortnightly from commissioning the extraction system | $m^3/h$ or(±) mbar | No trigger level – information enabling balancing of landfill gas extraction |
| Openness of valve aperture (for use on manifold systems) | Fortnightly from commissioning the extraction system | % open | No trigger level – information enabling balancing of landfill gas extraction |
| Composition [including trace components] of raw landfill gas from the extraction line, prior to the disposal system | 6 monthly | $\mu g/m^3$ | No trigger level – information supporting analysis of landfill gas generation and emissions from the site |
| Temperature (at each well head) | Fortnightly | °C ± 0.5°C | No trigger level – information enabling monitoring of landfill gas extraction |

DELETED 4.8.06
See mod · attached

*Landfill gas extraction balancing*

Z 3.11 In the event that any of the results of the landfill gas extraction monitoring exceed the relevant trigger levels specified in table **3.10** above, immediate action shall be taken to balance the system to ensure that the measured values are maintained in accordance with the specified trigger levels.

## Z 4 Monitoring and reporting of emissions from landfill gas flares

*Quality assurance plan for monitoring of flare emissions*

Z 4.1 Prior to the commissioning and operation of the landfill gas flare for a cell or phase, the licence holder shall submit in writing to the Agency a quality assurance plan for the monitoring of emissions from the flare, which shall meet the standards specified in table **4.1** below

**Table 4.1 Specified standards for quality assurance plan for monitoring of emissions from landfill gas flares**

| Monitoring and sampling records | Specified details |
|---|---|
| a) Quality assurance of monitoring and sampling | i) Monitoring shall only be carried out by suitably competent / qualified staff.<br>ii) Monitoring equipment shall be calibrated and serviced in accordance with the manufacturer's recommendations.<br>iii) A sample of emission gases shall be collected from each flare at least once per year and shall be subjected to laboratory analysis using gas chromotography or an alternative methodology agreed in writing by the Agency. |
| b) Making of records | Records shall include the following:<br>i) Determinands monitored/sampled;<br>ii) Specified details of measurements/samples to support analytical and QA requirements; including. dates, times, locations, personnel undertaking monitoring;<br>iii) Results of measurements/sample analyses, with error limits;<br>iv) Interpretation and review of results;<br>v) Validation of accuracy and validity of results, by designated quality assurer. |
| c) Submission of records | A copy of the quality assured records of each monitoring and sampling result shall be submitted to the Agency within 1 month of its being carried out. If any of the monitoring points have not been sampled or any analysis not included, an explanation of this omission shall be included in the submission. |

*Emission monitoring and sampling programme*

Z 4.2 Upon commissioning of the landfill gas flare for a cell or phase, and from then on, monitoring of emissions from the flare shall be carried out to measure and record the determinands specified in table **4.2** in accordance with the specified standards, and the measurements shall be made and recorded in accordance with the agreed quality assurance plan.

DELETED See mod. attached.

| Table 4.2 Landfill gas flare monitoring programme – determinands and standards | | | |
|---|---|---|---|
| **monitoring determinand** | **Monitoring frequencies** | **Units and accuracies** | **Trigger levels at NTP and 3% $O_2$, unless otherwise agreed in writing by the Agency** |
| Unburned hydrocarbons | 6 monthly from commissioning system | mg/Nm³± 1 mg/Nm³ | ≤10 mg/Nm³ |
| Oxides of nitrogen ($NO_x$) | 6 monthly from commissioning system | mg/Nm³± 1 mg/Nm³ | ≤150 mg/Nm³ |
| Carbon monoxide (CO) | 6 monthly from commissioning system | mg/Nm³± 1 mg/Nm³ | ≤50 mg/Nm³ |
| Temperature | 6 monthly from commissioning system | °C ± 1% | ≥1000°C.* |
| Retention time | 6 monthly from commissioning system | seconds ± 0.01 seconds | ≥ 0.3 seconds* |
| Gas Flow Rate | 6 monthly from commissioning system | Cubic metres of landfill gas per hour ±1% | Minimum level recommended in the relevant design specification |
| Sulphur Dioxide ($SO_2$) | Annually from commissioning system | mg/Nm³± 1 mg/Nm³ | No trigger level – information supporting analyses of results |
| Hydrogen Chloride (HCl) | Annually from commissioning system | mg/Nm³± 1 mg/Nm³ | No trigger level – information supporting analyses of results |
| Hydrogen Fluoride (HF) | Annually from commissioning system | mg/Nm³± 1 mg/Nm³ | No trigger level – information supporting analyses of results |
| Trace compounds & Furans / Dioxins | Annually from commissioning system | µg/Nm³± 1 µg/Nm³ | No trigger level – information supporting analyses of results |

DELETED 4.8.06 See mod. attached.

**Note** NTP = Normal Temperature and Pressure at 0°C and 1013 mbar.

* Unless alternative performance criteria demonstrated to meet desired emission standards above.

*Emissions monitoring action plan*

Z 4.3 Prior to the commissioning of each landfill gas flare, an emissions action plan shall be submitted to the Agency in writing which shall specify actions to be taken in the event that trigger levels are exceeded, or analysis indicates trend against background that is likely to exceed trigger levels.

Z 4.4 In the event that any results exceed the relevant trigger levels specified in table **4.2** above:

**a** the results shall be notified to the Agency immediately; and

**b** the action plan shall be implemented immediately, and its implementation recorded in the site diary.

## Z 5 Monitoring and control of landfill gas utilisation systems and alternative systems of disposal

Z 5.1 Landfill gas utilisation systems and alternative systems of disposal to landfill gas flaring shall not be installed or implemented in any cell or phase unless a quality assurance plan and programme to monitor and control the emissions against specified limits have been submitted in writing to and agreed in writing by the Agency. Following written agreement by the Agency of the quality assurance plan and programme, it shall be incorporated into the working plan.

Z 5.2 Monitoring, maintenance and control of emissions from the utilisation system or alternative disposal system shall be carried out in accordance with Table 5.2 unless alternative agreed in writing with the Agency and incorporated into the Working Plan.

DELETED 4.8.06
See mod. attached.

Table 5.2 Standards for emission monitoring and sampling programme of utilisation plant.

| Emission monitoring determinands | Monitoring frequencies | Units and accuracies referenced to NTP at 0°C + 1013mbar + 5%$O_2$ |
|---|---|---|
| Total chlorinated hydrocarbons within inlet gas | monthly upon commissioning, after first quarter annually thereafter. | mg/Nm³±1 mg/Nm³ |
| Unburned hydrocarbons | monthly upon commissioning, after first quarter annually thereafter. | mg/Nm³±1 mg/Nm³ |
| Oxides of nitrogen ($NO_x$) | monthly upon commissioning, after first quarter annually thereafter. | mg/Nm³±1 mg/Nm³ |
| Sulphur Dioxide ($SO_2$) | monthly upon commissioning, after first quarter annually thereafter. | mg/Nm³±1 mg/Nm³ |
| Carbon monoxide (CO) | monthly upon commissioning, after first quarter annually thereafter. | Mg/Nm³±1 mg/Nm³ |
| Hydrogen chloride (HCl) | monthly upon commissioning, after first quarter annually thereafter. | Mg/Nm³±1 mg/Nm³ |
| Hydrogen Fluoride (HF) | monthly upon commissioning, after first quarter annually thereafter. | Mg/Nm³±1 mg/Nm³ |
| Polycyclic aromatic hydrocarbons | third month after commissioning, then at one year, thereafter every two years. | µg/Nm³±1 µg/Nm³ |
| PCDDs | third month after commissioning, then at one year, thereafter every two years. | µg/Nm³±1 µg/Nm³ |
| PCDFs | third month after commissioning, then at one year, thereafter every two years. | µg/Nm³±1 µg/Nm³ |
| Organosulphur compounds | third month after commissioning, then at one year, thereafter every two years. | µg/Nm³±1 µg/Nm³ |
| Temperature | monthly | °C ±1% |
| Other halogenated organic compounds | third month after commissioning, then at one year, thereafter every two years. | µg/Nm³±1 µg/Nm³ |

DELETED 4.8.06

See mod attached.

## Z 6 Landfill gas monitoring and reporting external to the waste

*Provision of external landfill gas monitoring system*

Z 6.1 Within six months of the date of issue of this modification, for each existing cell or phase and before any wastes are deposited in each new cell or phase an external landfill gas monitoring system shall be provided in accordance with the following requirements of this condition. The objective of the external landfill gas monitoring system shall be to enable monitoring of the gases in the ground outside the waste body, so as to determine whether landfill gas is migrating from the site.

*Design report on the external landfill gas monitoring system*

Z 6.2 Prior to the installation of the external landfill gas monitoring system for each cell or phase, the licence holder shall submit to the Agency a written report detailing the proposed landfill gas monitoring system, which shall include the information set out in table **6.2**. Following written agreement by the Agency of the design report, it shall be incorporated into the working plan.

**Table 6.2 Details to be included in report on external landfill gas monitoring system**

| | | |
|---|---|---|
| a) | Landfill gas monitoring system infrastructure | Description, including design specification, scale drawings and location plans, for any landfill gas monitoring boreholes which are to be provided outside the waste body. |
| b) | Operation of the system | Description of how the external landfill gas management monitoring system will be:<br>i) operated;<br>ii) maintained in accordance with the manufacturers' or designers' recommendations/ specifications - this shall include a maintenance programme giving frequencies and subjects of inspection, with procedures, responsibilities, actions and deadlines for repair and replacement in the event of failed, defective or damaged components. |

*Design and operational standards for external landfill gas monitoring system*

Z 6.3 The engineered external landfill gas monitoring system provided for each cell or phase shall be designed, constructed, inspected, maintained, documented and recorded to meet the standards specified in table **6.3** below.

| Table 6.3 Standards for external landfill gas monitoring system | | |
|---|---|---|
| a) | Design of external landfill gas monitoring system | The location, spacing and depth of boreholes shall be as specified in the agreed design report. |
| b) | Construction and installation | Unless otherwise agreed in writing by the Agency:<br>i) the installations shall consist of boreholes of a minimum diameter of 150mm, containing a rigid HDPE casing of minimum internal diameter of 50mm;<br>ii) the annulus of the borehole shall be packed with non-calcareous pea gravel and completed at the surface with a gas tight seal;<br>iii) the borehole casing shall consist of plain pipe through the gas tight seal and manufactured perforated pipe within the response zone of the borehole;<br>iv) the borehole casing shall be completed at the surface with a removable gas tap, suitable for gas sampling, and these headworks shall be secure and protected from damage or vandalism<br>v) each borehole shall be permanently labelled with a unique identification number<br>vi) during construction of the boreholes a record shall be made of the subsurface geology encountered during drilling; and the geology shall be described by an appropriately qualified geotechnical engineer or similar person, who shall also provide a record of the 'as-built' dimensions of the monitoring installation. |
| c) | Inspection and maintenance | i) Monitoring installations shall be inspected for defects and damage during each routine monitoring exercise.<br>ii) Defects and damage shall be noted in the site diary, remedial measures shall be undertaken as soon as possible and in any case within 1 month.<br>iii) A record shall be kept in the site diary of all remedial actions undertaken.<br>iv) A review of the system shall be carried out on an annual basis, to ensure that the system is continuing to meet its design and performance standards. The first review shall be carried out not more than one year following the date of its installation, and subsequent reviews shall be carried out not more than one year following the previous review.<br>v) A written report of each review and its results shall be submitted in writing to the Agency within one calendar month of the review being completed. |

*Construction quality assurance of external landfill gas monitoring systems*

Z 6.4 Prior to construction of any fixed engineered components of the external landfill gas monitoring system associated with a cell or phase, a Construction Quality Assurance Plan covering those elements of the external landfill gas monitoring system associated with that cell or phase shall be submitted in writing to the Agency. No waste shall be deposited in any new cell or phase unless the CQA Plan for that cell or phase has been submitted to the Agency and agreed in writing by the Agency.

Z 6.5 Prior to construction of the fixed engineered components of the external landfill gas monitoring system, details of the identities, relevant qualifications of the personnel who will be providing Quality Assurance of the construction shall be submitted to the Agency.

Z 6.6 The fixed engineered components of the external landfill gas monitoring system for each cell or phase shall be constructed and recorded in accordance with the Construction Quality Assurance Plan.

Z 6.7 Changes to the Construction Quality Assurance Plan, quality assurance personnel, and detailed method statement shall not be implemented unless they have been agreed in writing by the Agency.

Z 6.8 Within 1 month following completion of the any fixed engineered components of the internal landfill gas monitoring system for each cell or phase, the Validation Report on the construction for that cell or phase shall be submitted in writing to the Agency.

*External landfill gas monitoring and sampling programme*

Z 6.9 Monitoring and sampling of landfill gas external to the waste body of each phase shall be carried out and recorded in accordance with the standards specified in Table **6.9** below or otherwise agreed in writing with the Agency and incorporated into the Working Plan.

**Table 6.9 Standards for external landfill gas monitoring and sampling programme**

| Landfill gas monitoring determinands | Monitoring frequencies | Units and accuracies | Trigger levels |
|---|---|---|---|
| Methane | Monthly, from: Starting input of waste or specified date | % v/v and 0.3% | >1% |
| Carbon dioxide | Monthly, with methane monitoring | % v/v and 0.3% | >1.5 % |
| Oxygen | Monthly, with methane monitoring | % v/v and 0.3% | < 18% |
| Atmospheric pressure | Monthly, with methane monitoring | mbar and to1mbar | None |
| Differential pressure | Monthly, with methane monitoring | mbar and to1mbar | Not applicable. |

*Baseline monitoring results (External)*

Z 6.10 No wastes shall be deposited in any new cell or phase unless:

**a)** background monitoring has been carried out in accordance with the external landfill gas monitoring plan for that cell or phase over a minimum period of 3 consecutive months prior to the programmed date for commencing deposit in that cell or phase;

**b)** the results of the background monitoring have been collected, interpreted and a report compiled and submitted to the Agency and receipt of the report has been acknowledged in writing by the Agency.

*Monitoring and sampling records*

Z 6.11 A record of the external landfill gas monitoring and sampling results shall be made and submitted to the Agency in accordance with the standards specified in Table **6.11** below.

| Table 6.11 Standards for external landfill gas monitoring and sampling records | | |
|---|---|---|
| a) | Quality assurance of monitoring and sampling | i) Monitoring shall only be carried out by suitably competent / qualified staff.<br>ii) Monitoring equipment shall be calibrated and serviced in accordance with the manufacturer's recommendations.<br>*iii)* Samples of gas shall be collected during routine monitoring from at least 10% of the monitoring wells annually and subjected to laboratory analysis using gas chromatography to confirm the accuracy of field measurements. |
| b) | Making of records | Records shall include the following:<br>i) Determinands monitored/sampled;<br>ii) Specified details of measurements/samples to support analytical and QA requirements; including. dates, times, locations, personnel undertaking monitoring;<br>iii) Results of measurements/sample analyses, with error limits;<br>iv) Interpretation and review of results against trigger levels;<br>v) Validation of accuracy and validity of results, by designated quality assurer. |
| c) | Submission of records | A copy of the quality assured records of each monitoring and sampling result shall be submitted to the Agency within 1 month of its being carried out. |

*Emissions monitoring action plan*

Z 6.12 Prior to the commissioning of the external landfill gas monitoring system for each cell or phase, an emissions action plan shall be submitted to the Agency in writing which shall specify actions to be taken in the event that trigger levels are exceeded, or analysis indicates trend against background that is likely to exceed trigger levels.

Z 6.13 In the event that any results are not in accordance with the relevant trigger levels specified in table **6.11** above:

**a)** the results shall be notified to the Agency immediately; and

**b)** the action plan shall be implemented immediately, and its implementation recorded in the site diary.

## Z 7 Monitoring and control of odorous emissions

Z 7.1 Within six months of the date of issue of this modification, a plan for monitoring and controlling the emission of odours from the site shall be provided in writing to the Agency. The objective of the plan shall be to prevent emissions of odours from the site in such quantities or concentrations that are likely to cause pollution of the environment or harm to human health or serious detriment to the amenity of the locality.

Z 7.2 The plan shall specify the frequencies, times, locations and methods of monitoring for odorous emissions, and the actions to be taken in the event of detection or notification of odorous emissions from the site. Following written agreement of the plan by the Agency, it shall be incorporated into the working plan. Once agreed the plan and any subsequent agreed amendments to it shall be implemented while the licence subsists.

Z 7.3 The measures specified in the plan to monitor, control and minimise the emission of odours from the site shall meet the standards specified in Table **7.3**.

| Table 7.3 Standards for monitoring and control of emissions of odours | | |
|---|---|---|
| a) | Monitoring of odorous emissions | Olfactory monitoring of aerial emissions from the site shall be carried out:<br>i) in accordance with the agreed monitoring plan, and shall be recorded in the site diary; and<br>ii) by site staff supervising individual waste handling operations, during the carrying out of those operations. |
| b) | Odorous emissions action plan | i) On detection or notification of aerial emissions of odour that are or are likely to be transported beyond the site boundary, at such levels that they are likely to cause pollution of the environment or harm to human health or serious detriment to the amenity of the locality, immediate action to be taken to stop the waste handling operations giving rise to the emission and to suppress the aerial emission from the waste.<br>ii) The incident and the remedial action shall be recorded in the site diary. |

Z 7.4 All emissions to air from waste management operations on the site shall be free from odours at levels as are likely to cause pollution of the environment or harm to human health or serious detriment to the amenity of the locality outside the site boundary, as perceived by an authorised officer of the Agency.

## Z 8 Interpretation

In these conditions and their interpretation, unless the context otherwise requires, the following terms have the specified meanings:

*"authorised officer of the Agency"*
means any person(s) authorised in writing by the Agency pursuant to section 108(1) of the 1995 Act to exercise any of the powers specified in subsection (4) of that section;

*borehole:*
means a hole drilled outside wastes in order to obtain samples and to monitor for landfill gas migration

*"consequences"*
for **risk assessments** carried out within these conditions, means the adverse effects of harm as a result of realising a **hazard** which cause the quality of human health (other than health and safety of site staff or visitors to the site covered under the Health and Safety at Work Act 1974) or the environment to be impaired in the short or longer term;

*"engineer"*
for engineering works specified in these conditions, means a person who works in the relevant branch of engineering, as a qualified professional;

*"engineered"*

for works specified in these conditions, means carried out and completed using the relevant engineering process specified in these conditions;

*"engineering"*

for engineering works specified in these conditions, means the relevant process of design, construction or installation, quality assurance or validation or commissioning specified in these conditions;

*"hazard"*

means a property or situation that in particular circumstances could lead to harm;

*"immediately"*

for carrying out of actions under the conditions, shall mean without delay and within a reasonable time, taking into account any more immediate direct action necessary to prevent or minimise risk to human health and the environment. For carrying out notifications to the Agency, shall also mean by the fastest effective means available (for example, telephone) and confirmed in writing within 1 working day (or such other time as may be agreed by the Agency within the conditions);

*"maintenance"*

for engineering maintenance specified in these conditions, means the process of inspection, testing, repair of the relevant engineering works specified in these conditions;

*"monitoring well"*

means a shaft installed in wastes for the monitoring and/or extraction of landfill gas

*"probability"*

means the quantified expression of chance, denoted either as:

- the ratio or percentage of the occurrence of a particular event as one among a number of possible events;
- or as the frequency of occurrence of a particular event in a given period of time;

*"received"*

for waste being delivered to the site, shall mean delivered to the site and undergoing the waste acceptance procedures specified in the working plan, including storage of those wastes during those procedures prior to acceptance of the waste;

*"release pathways"*

for **risk assessments** carried out within these conditions, shall mean the routes by which defined **hazards** may potentially realise their **consequences**, defined in terms of releases or emissions from the site that go beyond the site containment or boundary via one or more of the following routes, either directly or indirectly: **Land; Groundwater; Surface water; Atmosphere**;

*"risk"*

means a combination of the **probability** and **consequences** of occurrence of a defined **hazard**;

*"risk assessment"*

means the systematic identification, analysis, estimation and evaluation within a defined **scope** of the defined **risks** of a particular activity, operation, process or design, carried out and reported by suitably qualified or competent persons, using recognised quantified or semi-quantified methods and techniques.

Unless otherwise agreed by the Agency within these conditions, a risk assessment shall include and record the following:

- definition of the **hazards** associated with an activity, operation, process or design;
- assessment of the **probability** of those **hazards** occurring;
- determination of the potential **consequences** of those hazards for defined **environmental targets or receptors**, taking into account defined **release pathways** and defined protective measures;
- evaluation of the potential **magnitude** of those consequences and the **probability** of their occurrence;

*"scope of risk assessment"*

means the boundaries of the **risk assessment** and the **risks** to be assessed within those boundaries, as defined in the conditions or otherwise agreed by the Agency within the conditions;

*"the Agency"*

means the Environment Agency;

*"the Licence Holder"*

means the Licence Holder specified in this licence or other person to whom the licence has been transferred in accordance with section 40 of the Environmental Protection Act 1990;

*"the operator"*

means a person who is in occupation of the site and has responsibility for carrying out day to day activities at the site;

*"the site"*

means the land, structures, plant and equipment to which the licence relates;

*"time periods, e.g. annually, quarterly, monthly, per year, etc. "*

Where periods are referred to in conditions, they shall be calculated in the following way:

- annually or per year: 1 April to 31 March;
- quarterly: 1 April to 30 June, 1 July to 30 September, 1 October to 31 December, 1 January to 31 March;
- monthly: calendar month;
- weekly: Monday to Sunday
- working day: Monday to Friday inclusive, excluding Bank/Public Holidays.

Where the issue of the licence does not coincide with the start of any of these periods, then any relevant limits for the first period shall apply pro rata;

*"waste"*

means controlled waste as defined in section 75(4) of the 1990 Act and the Controlled Waste Regulations 1992 or any statutory provisions or regulations amending or replacing them;

*"working plan"*

means the working plan identified in writing by the Agency at the time of issue of the licence and any subsequent amendments to it made in accordance with the conditions of this modification.

# EXPLANATORY NOTES - including rights of appeal.

## RIGHTS OF APPEAL

Section 43(1) of the Environmental Protection Act 1990 provides that:

Where, except in pursuance of a direction given by the Secretary of State, the conditions of a licence are modified, the licence holder may appeal from the decision to the Secretary of State.

Therefore, if you feel aggrieved by the decision detailed on the attached notice, you may obtain the appropriate form on which to give written notice of an appeal from :-

The Planning Inspectorate
Room 4/19
Eagle Wing, Temple Quay House
2 The Square
Temple Quay
Bristol
BS1 6PN

Tel: 0117 987 8812
Fax: 0117 987 6093

For Wales, the address is – The Planning Inspectorate
Crown Buildings
Cathays Park
Cardiff
CF10 3NQ

Tel: 02920 823859
Fax: 02920 825150

This notice of appeal should be accompanied by the following information:

A statement of the grounds of appeal;

A copy of any application to modify the licence

A copy of the licence;

A copy of any correspondence relevant to the appeal;

A copy of any other document relevant to the appeal including, in particular, any relevant consent, determination, notice, planning permission, established use certificate or certificate of lawful use or development and

A statement indicating whether you wish the appeal to be in the form of a hearing or on the basis of written representations.

You are also required to serve a copy of your notice of appeal, together with copies of any the above documents that have accompanied your notice of appeal, on the Environment Agency (at the address overleaf). You should appeal within 6 months of the date that this notice takes effect but the Secretary of State may allow notice of appeal to be given after the expiry of this time period.