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ENVIRONMENTAL PROTECTION ACT 1990. SECTION 37

WASTE MANAGEMENT LICENCE NOTICE OF MODIFICATION

<p>LICENCE REF No:- 17</p> <p>LICENCE HOLDER:- Amgen (Rhondda) Limited</p> <p>The Company Secretary Amgen (Rhondda) Limited Bryn Pica Landfill Site Llwydcoed Aberdare CF44 0VX</p> <p>Company Reg No 3687641</p>	<p>FACILITY TYPE:- Landfill</p> <p>LICENSED FACILITY:- Nantygwyddon Landfill Site</p> <p>Nantygwyddon Landfill Site Mynydd y Gelli Gelli Rhondda Cynon Taff CF41 7TL</p>
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WHEREAS on the 15th March 1995 the Rhondda Borough Council issued a waste management licence in pursuance of its powers under Part II of the Environmental Protection Act 1990 for the above named facility to Rhondda Waste Disposal Limited

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 the 31st January 1997 the Agency modified the conditions of the said licence pursuant to section 37 of the Environmental Protection Act 1990

AND WHEREAS on the 12th July 1997 the Agency modified the conditions of the said licence pursuant to section 37 of the Environmental Protection Act 1990

AND WHEREAS on the 8th May 1998 the Agency modified the conditions of the said licence pursuant to section 37 of the Environmental Protection Act 1990

AND WHEREAS on the 26th March 1999 the Agency modified the conditions of the said licence pursuant to section 37 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

Name

Stephen Tranah
Team Leader – Waste Licencing

Dated

18th January 2002



This modification shall take effect on 18th January 2001 at 00.01 hours

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

SCHEDULE - CONDITIONS RELATING TO THIS MODIFICATION

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

Delete all conditions

Add new conditions as per modification No.5 dated the 18th January 2002

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 National Assembly for Wales, the conditions of a licence are modified, the licence holder may appeal from the decision to the National Assembly for Wales.

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
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 below). You should appeal within 6 months of the date that this notice takes effect but the National Assembly for Wales may allow notice of appeal to be given after the expiry of this time period.

Environment Agency Wales
Abacus House
St Mellons Business Park
St Mellons
Cardiff
CF3 0EY

1 GENERAL CONSIDERATIONS

1.1 Specified waste management operations

- 1.1.1 No waste management operations shall be authorised by this licence unless specified in and undertaken in accordance with the limitations in Table 1.1 below, and section 1.1 of the working plan :

Table 1.1 – Specified waste management operations.		
Specified waste management operations	Permitted waste types which are subject to the specified operation	Limits on specified waste management operations
1. Specially engineered landfill of waste. [D5] Includes :-	All permitted wastes.	Landfilling operations must be carried out in accordance with licence conditions 4.4.1 to 4.9.1, and sections 4.4 to 4.9 of the working plan.
Compaction operations integral to waste placement.		Compaction operations must be undertaken in accordance with licence conditions 4.4.1 to 4.9.1 and sections 4.4 to 4.9 of the working plan.
Landfill gas collection and flaring as part of / resulting from the landfill operation		Landfill gas collection and flaring must be undertaken in accordance with licence conditions 2.5.1 to 2.5.6, and section 2.5 of the working plan.
Leachate collection, treatment and disposal resulting from the landfill operation.		Leachate collection, treatment and disposal must be undertaken in accordance with licence conditions 2.4.1 to 2.4.3 and section 2.3 of the working plan.
2. Storage pending disposal [D15]	a.) Civic Amenity Sites. Waste arising from Civic Amenity Sites only.	Maximum storage capacity of the area used for temporary storage is 250m ³ . No wastes shall be stored for longer than 24 hours prior to being deposited at the site.
	b.)Storage of inert wastes Inert soil forming wastes only to be stored, for use as site engineering or cover materials. Non-soil forming inert wastes (i.e. plastics, metals etc.) are not permitted to be stored in these area(s).	The maximum volume of stored inert soil-forming wastes should be no more than 5000 m ³ .

Specified waste management operations and exempt waste management operations.

- 1.1.2 Where wastes are being brought onto the site for waste management operations which are exempt from licensing under the 1994 Regulations, then the wastes which are subject to the specified waste management operations shall be kept clearly segregated and identified from those wastes which are being kept on the site for the exempt waste management operations.

1.2 Permitted waste types and quantities

- 1.2.1 No wastes other than those both categorised below and specified in detail in section 1.2.1 of the working plan shall be accepted at the site. The quantities of waste accepted shall not exceed those listed in Table 1.2A below or otherwise specified in section 1.2.1 of the working plan. Whilst complying with the maximum quantities specified for each type of waste, the total quantity of waste accepted at the site shall not exceed 300,000 tonnes per annum.

Table 1.2A – permitted waste categories	
Permitted waste categories	Maximum permitted quantities (tonnes/year)
Inert wastes	} 294 000 tonnes (825 tonnes / day)
Degradable household wastes	
Degradable commercial wastes	
Degradable industrial wastes	
Scrap metal	Not permitted except where arising incidentally in permitted loads.
Special Wastes	Not permitted.
Other wastes:	} 6000 tonnes per annum (500 tonnes/ month or 125 tonnes/ week.)
a.) Street sweeping and dewatered gully wastes, shredded tyres and weathered asphaltic arisings consisting of pitch, bitumen and asphalt.	
b.) Other wastes - as specified in section 1.2.1 of the working plan.	

Exclusion of wastes with other specified characteristics.

- 1.2.2 Notwithstanding the specification of permitted waste types under 1.2.1 above, wastes shall not be permitted which have any of the following specified characteristics:

Table 1.2B – Excluded wastes of specified form and type	
Waste Characteristic	Type
Form and Type:	Dry wastes (Special) Wet wastes (Special) Powders (Special) Sludges (Non-Special, Special) Liquid wastes (Non-Special, Special)
Properties	Likely to be odour producing Likely to be dust producing Any waste containing more than 10% Calcium Sulphate by volume, including all Calcium Sulphate filter cake wastes.

Form of containers

Any drummed wastes.

1.3 Hours of operation.

- 1.3.1 The specified waste management operations authorised by this licence shall only be carried out within the times specified in section 1.3 of the working plan .

1.4 Duration of activities – groundwater protection

- 1.4.1 The activities of disposal, or tipping for the purpose of disposal, of waste which are authorised by this licence shall cease within 12 months of the date of issue of this modification and shall not recommence unless the investigation and risk assessment, carried out in accordance with sub-condition 1.4.2 shows that, at the specified dates, there is no risk to groundwater under the terms of Regulation 15 of the 1994 Regulations, and this has been accepted in writing by the Agency.

Investigation and Risk Assessment under Regulation 15.

- 1.4.2 The Licence Holder shall undertake an investigation to assess the actual and potential impact of discharges from the site in respect of Regulation 15 of the 1994 Regulations. The investigation shall include the following, or in the case of a subsequent review, shall include a review of the following :-

- a** Any relevant site investigation and monitoring data already available, and interpretation of that data;
- b** An examination of the hydrogeological conditions of the area in and around the site;
- c** An assessment of the risk of pollution and alteration of the quality of groundwater including the risk of harm to other aquatic systems and ecosystems, and the likelihood of impeding exploitation of groundwater resources from any discharge, whether direct or indirect, of List I and List II substances.

- 1.4.3 The results of the investigation shall be submitted in a written report to the Agency. The report shall include the following, or in the case of subsequent reviews, reviews thereof :

- a** Recommendations of the essential technical precautions which must be taken, paying particular attention to the nature and concentration present in the matter being disposed of or tipped, the characteristics of the receiving environment and the proximity of the water catchment areas, in particular those for drinking, thermal and mineral water;
- b** Recommendations of the technical precautions necessary :-
 - i** In the case where groundwater is considered to be permanently unsuitable for other uses, to ensure that no substance in List I can reach other aquatic ecosystems or harm other ecosystems, to ensure that the presence of any List I substance once discharged into the groundwater will not impede exploitation of groundwater resources, and to prevent pollution of groundwater by List II substances; and
 - ii** In the case where groundwater is not considered to be permanently unsuitable for other uses, to prevent any discharges into groundwater of substances in List 1, and to prevent any pollution of groundwater by substances in List II.

1.5 Staffing and understanding of requirements of licence conditions and working plan.

Minimum staffing and supervision.

- 1.5.1 Whenever the site is open to receive or despatch waste, or is carrying out any of the specified waste management operations, it shall be supervised in accordance with section 1.5 of the working plan by a minimum of two site operatives who are suitably trained and fully conversant with the requirements of the licence and the working plan regarding:

- a** waste acceptance and control procedures;
- b** operational controls and environmental monitoring;
- c** maintenance;
- d** record-keeping;
- e** emergency action plans;
- f** notifications to the Agency.

Availability of licence and working plan.

- 1.5.2 A copy of this licence and the working plan shall be kept available on site for reference when required by all site staff carrying out work under the requirements of the licence.

Understanding of licence and working plan.

- 1.5.3 All site staff shall be, or shall work under the direct supervision of a member of staff who is, fully conversant with those aspects of the licence conditions and working plan which are relevant to their specific duties, as detailed in section 1.5.3 of the working plan.

1.6 Changes in technically competent persons.

- 1.6.1 Any changes in the technically competent management of the site and the name of any incoming person together with evidence that such person has the required technical competence shall be submitted to the Agency in writing within 5 working days of the change in management. Technically competent management and technical competence shall be as defined under s.74 of the Environmental Protection Act 1990, and Regulations 4 and 5 of the Waste Management (Licencing) Regulations 1994.

1.7. Relevant convictions.

Notification of relevant convictions

- 1.7.1 In the event of the Licence Holder and/or any relevant person being convicted of any relevant offence (as defined in Regulation 3 of the Waste Management Licensing Regulations 1994 or any amendment to the aforementioned Regulation) and which is in addition to any already notified to the Agency, then full details shall be provided to the Agency within 14 days of conviction, whether or not the conviction is subsequently appealed. Such details shall include, in respect of each relevant person (as defined in Section 74(7) of the Environmental Protection

Act 1990 or any subsequent amendments to that Section), the nature of the offence, the place and date of conviction and any fine or other penalty imposed.

Notification of appeals against convictions.

- 1.7.2 In the event that the Licence Holder and/or any relevant person lodges an appeal against any such conviction or sentence, the Licence Holder shall notify the Agency of this within 14 days of the lodging. The Licence Holder shall notify the Agency of the results of that appeal, within 14 days of the appeal being decided.

1.8 Maintenance of financial provision.

- 1.8.1 The financial provision for meeting the obligations of this licence set out in the Agreement made between the Licence Holder and the Agency dated 23rd September 1999 shall be maintained by the Licence Holder throughout the subsistence of this Licence, and the Licence Holder shall produce evidence of such provision whenever required by the Agency.

1.9 Amendments to working plan and supporting information.

Amendments to working plan requiring prior consent from the Agency

- 1.9.1 The Licence Holder shall give the Agency prior notice in writing of any proposed change to those sections of the working plan which are specified in Table 1.9 overleaf, and to any appendices, drawings and figures which are referenced in those sections.

Table 1.9 - Sections of working plan requiring prior consent for amendments		
Number and heading of working plan sections and appendices		Sections, Subsections and Appendices requiring prior consent for amendments
1.1	Specified waste management operations	1.1.1
1.2	Permitted wastes	1.2.1, 1.2.2
1.3	Hours of operation	1.3
1.4	Staffing and understanding of requirements of licensing conditions and working plan	1.4.1, 1.4.2
1.5	Changes in technically competent persons	1.5
2.1	Engineering surveys	2.1
2.2	Engineered landfill containment system for solid and liquid wastes	2.2.3, 2.2.4
2.3	Leachate management systems	All subsections
2.4	Construction quality assurance	2.4
2.5	Landfill gas management systems	All subsections
2.6	Drilling logs	2.6
2.7	Pipe jointing	2.7
2.8	Pressure testing	2.8
2.9	Commissioning	2.9
2.10	Engineered surface water management systems	All subsections
2.11	Installation, maintenance and protection of final capping	All subsections
2.12	Inert bund	All subsections
3.2	Site Security	3.2.1
4.2	Potentially polluting leaks and spillages of materials	4.2
4.3	Fires on the site	4.3
4.4	Waste acceptance and control procedures	All subsections
4.6	Waste quantity and measurement systems	4.6
4.7	Waste placement procedures – landfill operations	All subsections
4.8	Use of cover material	All subsections
4.9	Plant, equipment and communication	4.9.2, 4.9.3, 4.9.4
5.2	Monitoring and balancing of landfill gas extraction system	All subsections
5.3	Monitoring and reporting of emissions from landfill gas flares	All subsections
5.4	Monitoring and control of landfill gas utilisation systems and alternative methods of disposal	5.4
5.5	Landfill gas monitoring and reporting external to the waste	All subsections
5.6	Perimeter and surface monitoring of hydrogen sulphide within the licenced area	All subsections
5.7	Community hydrogen sulphide monitoring procedure	5.7.1
5.8	Weather monitoring	All subsections
5.9	Leachate monitoring and reporting	All subsections
5.10	Groundwater monitoring and reporting system	All subsections
5.11	Surface water monitoring and reporting	All subsections
6.1	Control, monitoring and reporting of dusts, fibres and particulates	6.1.1, 6.1.2
6.2	Control of odours	6.2
6.3	Control of pests	6.3
6.4	Control of birds and other scavengers	6.4
6.5	Control of litter	6.5

- 1.9.2 The notice shall be accompanied by a copy of the proposed changes, and by a written assessment of the effect that implementing the proposed change to the working plan would have on the risk posed by the site to human health and the environment.
- 1.9.3 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.
- 1.9.4 The proposed change to the working plan shall not be implemented unless the Agency has given its written consent to it. Following consent, 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 be incorporated in the working plan in replacement of the previous version of that section.

Amendments to the working plan requiring prior notification to the Agency.

- 1.9.5 Except where it is specified under condition 1.9.1 above that the amendment of specified sections of the working plan requires the prior consent of the Agency, the Licence Holder shall give the Agency not less than 7 days prior written notice of any change to the working plan and to any appendices, drawings and figures which are referenced from those sections.
- 1.9.6 The notice shall be accompanied by a copy of the specified changes.
- 1.9.7 The Licence Holder shall provide up to 6 additional copies of the proposed change to the Agency, when required by the Agency in writing.
- 1.9.8 Such changes to the working plan shall be deemed to be incorporated in the working plan and implemented on the date specified to the Agency in the amendment notification.

1.10 Notification of change of operator's or holder's details.

- 1.10.1 The following information shall be notified in writing within 5 working days to the Agency:
- i** any change in the Licence Holder trading name, registered name or registered office address;
 - ii** any steps taken with a view to the Licence Holder going into administration, entering into a company voluntary arrangement or being wound up;
 - iii** details of the operator at the time of the issue of the licence modification, and of any change in the operators trading name, registered name or registered office address (if different from the Licence Holder).

1.11 Notification of preparatory works

- 1.11.1 No preparatory works shall be undertaken unless at least 7 days prior notice in writing has been given to the Agency of the intention to do so. The notification shall include details of what work is proposed and when it is proposed to undertake this work.

1.12 Notification of commencement, cessation and recommencement of waste management operations.

Specified waste management operations.

- 1.12.1 No specified waste management operation shall be carried out unless at least 7 days prior notice in writing has been given to the Agency of the intention to commence carrying out the specified waste management operation.

Cessation and recommencement of receiving wastes.

- 1.12.2 In the event that the site ceases receiving wastes for longer than 14 consecutive days, then within 7 days following the end of that time, the Licence Holder shall inform the Agency in writing of the date of cessation and of the planned date of recommencement. In the event that the site will recommence receiving wastes sooner than the notified date, then the Licence Holder shall give the Agency not less than 7 days prior notice in writing.

1.13 Notifications and submissions to the Agency.

- 1.13.1 Except where otherwise specified, all notifications and submissions to the Agency under the requirements of these licence conditions :
- a** shall be made in writing to the address specified by the Agency in writing at the time of issue of this licence, or as subsequently specified by written notification to the Licence Holder;
 - b** shall quote the licence reference number and the name of the Licence Holder.

2 SITE ENGINEERING FOR POLLUTION PREVENTION AND CONTROL

2.1 Engineering surveys.

- 2.1.1 Within 3 months of the date of issue of this modification, a network of stable, permanent survey control stations [minimum four] shall be established and maintained for the control of all survey work around the site. The stations shall be referenced to Ordnance Survey National Grid co-ordinates, the grid alignment to be within +/-1 metre and Levels referenced to Ordnance Datum. The accuracy of horizontal control shall not be less than 1:20 000. The level values of adjacent stations shall agree to less than or equal to 0.005 metres. A schedule of descriptions, co-ordinates and level values of all control stations, together with details of benchmarks used shall be submitted in writing to the Agency.
- 2.1.2 A topographic survey shall be carried out immediately before the start of filling of each phase or cell, at annual intervals (unless otherwise agreed in writing by the Agency), and at the completion of restoration. The scale shall adequately show surveyed features and be at a scale of at least 1:1250. The surveys shall be sufficient to produce plans that include all roads, structures, boundaries, monitoring points and all other relevant site features. The results of the survey shall be presented as a plan, including the immediate neighbouring landform(s) or an indication of those landform(s). Plan positions of ground features to be shown to within 1 metre. Spot levels to 0.01m shall be shown at significant landform changes at a density to adequately indicate the true landform, no greater than 50 metre interval in open areas of even gradient, closer when indicating embankments, stockpiles, etc. Cross-sections are to be shown through the landfilled area at representative intervals. A calculation of void space in cubic metres, taking account of settlement, shall be carried out at start and at each annual survey. The results of the survey and the calculation shall be submitted to the Agency within 1 month of the survey being carried out.
- 2.1.3 A full and independent site investigation shall be undertaken and reported to the Agency to assess the stability of the inert bund within 6 months of the date of issue of this modification, and on a biennial basis thereafter. The specification of the investigation shall be agreed with the Agency prior to its execution. A minimum of 6 copies of this report, together with recommendations for future action shall be provided to the Agency. This independent assessment by a Chartered Civil Engineer must be signed and certified as being a true and correct situation report on the overall safety characteristics of the inert retaining bund.

2.2 Engineered landfill containment system for solid and liquid wastes (leachate and gas generating).

Provision of engineered landfill containment.

- 2.2.1 From the date of issue of this modification, waste shall only be deposited in cells or phases which have an engineered landfill containment system which is constructed, completed, documented and recorded in accordance with section 2.2 of the working plan
- 2.2.2 No wastes shall be deposited in any cell or phase unless:
- a** prior to construction, a Construction Quality Assurance Plan covering all elements of the engineered landfill containment system for that cell or phase has been submitted in writing to the Agency and the Agency has given its written consent to it;

- b** prior to construction, details of the identities, relevant experience and relevant qualifications of the personnel who will be providing independent Quality Assurance of the construction have been submitted in writing to the Agency and acknowledged in writing by the Agency
- c** the engineered containment system for that cell or phase has been constructed and recorded in accordance with the Construction Quality Assurance Plan;
- d** all changes to the Construction Quality Assurance Plan, independent quality assurance, and detailed method statements have been notified in writing to the Agency, and the Agency has given its written consent to those changes;
- e** the Validation Report on the construction of the engineered containment system for that cell or phase has been submitted in writing to the Agency and has been acknowledged in writing by the Agency.

2.3 Leachate management systems.

Provision of leachate management systems.

- 2.3.1 From the date of issue of the modification, waste shall only be deposited in cells or phases which have an engineered leachate management system constructed, documented and recorded in accordance with section 2.3 of the working plan and the standards specified in conditions 2.3.2, 2.3.3 and 2.3.4 below.
- 2.3.2 The engineered leachate management system provided for each cell or phase shall be used to maintain the depth of leachate below the maximum permitted depth within each cell or phase, in accordance with section 2.3 of the working plan.

Construction quality assurance of leachate management system

- 2.3.3 No wastes shall be deposited in Phase 2 unless:
 - a** Prior to construction, a Construction Quality Assurance Plan covering all elements of the engineered leachate management system for that cell or phase has been submitted in writing to the Agency, and the Agency has given its written consent to it;
 - b** Prior to construction, details of the identities, relevant experience and relevant qualifications of the personnel who will be providing third party, independent Quality Assurance of the construction have been submitted in writing to the Agency and acknowledged in writing by the Agency;
- 2.3.4 The engineered leachate management system for that cell or phase has been constructed and recorded in accordance with the Construction Quality Assurance Plan;
- 2.3.5 All changes to the Construction Quality Assurance Plan, quality assurance and detailed method statements have been notified in writing to the Agency, and the Agency has given its written consent to those changes;
- 2.3.6 Within one calendar month following completion of the construction of the engineered leachate collection and extraction system for that cell or phase, a validation report shall be submitted in writing to the Agency.

2.4 Landfill gas management systems.

Provision of landfill gas management system

- 2.4.1 From the date of issue of this modification and in agreement with the Agency, each cell or phase in which waste is deposited shall have an engineered landfill gas management system constructed, completed, documented and recorded in accordance with section 2.5 of the working plan, and conditions 2.4.2, 2.4.3 and 2.4.4 below.
- 2.4.2 The engineered 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 section 2.5 of the working plan.

Design report on landfill gas management system

- 2.4.3 Prior to the installation of a landfill gas management system in a new 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 2.4 below. Following written agreement with the Agency, it shall be incorporated into the working plan.

Table 2.4 – Requirements for design report on landfill gas management system

Landfill gas management system infrastructure	Description, including design specification and scale drawings and plans, for: <ul style="list-style-type: none">i. any additional landfill gas barriers which are to be provided, other than those specified in the existing landfill containment system for that cell or phase;ii. landfill gas collection and extraction pipes;iii. protection systems for landfill gas collection pipes;iv. pumping systems for landfill gas, including any storage systems prior to treatment and disposal or use
Operation of the system	Description of how the landfill gas management system will be: <ul style="list-style-type: none">i. operated;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.
Treatment and disposal or utilisation systems for landfill gas	Description, including design specification and scale drawings and plans, for: <ul style="list-style-type: none">i. landfill gas flaring systemsii. landfill gas power units, where these are to be provided;iii. alternative treatment or disposal systems, where these are to be provided.

Construction Quality Assurance of landfill gas management system

- 2.4.4 No wastes shall be deposited in any new cell or phase unless:
- a** 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 has been submitted in writing to the Agency, and the Agency has given its written consent to it;
 - b** Prior to construction of the landfill gas management system for each cell or phase, details of the identities and relevant qualifications of the personnel who will be providing Quality Assurance of the construction have been submitted in writing to the Agency, and acknowledged in writing by the Agency;
- 2.4.5 The engineered landfill gas management system for each cell or phase shall be constructed and recorded in accordance with the Construction Quality Assurance Plan, and the construction shall be completed within 6 months following completion of waste deposits in that cell or phase.
- 2.4.6 Changes to the Construction Quality Assurance Plan, quality assurance personnel and detailed method statements as referenced in section 2.5 of the working plan shall not be implemented unless they have been notified in writing to the Agency, and the Agency has given its written consent to those changes.
- 2.4.7 Within 1 calendar month following completion of the specified engineering works 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.

2.5 Engineered surface water management systems.

Provision of engineered surface water management systems.

- 2.5.1 From the date of issue of this modification, engineered surface water management systems for each cell or phase shall be provided which shall have been constructed, completed, documented and recorded in accordance with section 2.10 of the working plan, and conditions 2.5.3 and 2.5.4 below.
- 2.5.2 The engineered surface water management system provided shall be operated, maintained and fully documented and recorded in accordance with section 2.10 of the working plan.

Construction quality assurance of engineered surface water management systems.

- 2.5.3 No wastes shall be deposited in any new cell or phase unless:
- a** prior to construction, a Construction Quality Assurance Plan covering all elements of the engineered surface water management system for that cell or phase has been submitted in writing to the Agency and the Agency has given its written consent to it;
 - b** prior to construction, details of the identities, relevant experience and relevant qualifications of the personnel who will be providing Quality Assurance of the construction have been submitted in writing to the Agency and acknowledged in writing by the Agency.
- 2.5.4 The engineered surface water management system for that cell or phase shall be constructed and recorded in accordance with the Construction Quality Assurance Plan, and the

construction shall be completed within 3 months following the completion of waste deposits in that cell or phase.

- 2.5.5 Changes to the Construction Quality Assurance Plan, and to the quality assurance procedures and detailed method statements as referenced in section 2.10 of the working plan shall not be implemented unless they have been notified in writing to the Agency, and the Agency has given its written consent to those changes.
- 2.5.6 Within 3 months following completion of the specified engineering works for each cell or phase, the Validation Report on the construction of the engineered surface water management system for that cell or phase shall be submitted in writing to the Agency.

2.6 Installation, maintenance and protection of final capping.

Provision of final cap

- 2.6.1 From the date of issue of this modification, no cell or phase shall be left without a final cap for longer than 6 months (or such longer period as may be agreed in writing by the Agency) after the final levels of waste specified in section 2.11 of the working plan have been attained.
- 2.6.2 Each final cap shall be designed, constructed, maintained and protected in accordance with section 2.11 of the working plan.

Construction quality assurance of final cap

- 2.6.3 No wastes shall be deposited in any cell or phase until a Construction Quality Assurance Plan covering the final cap for that cell or phase has been submitted in writing to the Agency and the Agency has given its written consent to it.
- 2.6.4 The engineered final cap for that cell or phase shall be constructed and recorded in accordance with the Construction Quality Assurance Plan.
- 2.6.5 Changes to the Construction Quality Assurance Plan, and to the quality assurance procedures and detailed method statements as referenced in section 2.11 of the working plan shall not be implemented unless they have been notified in writing to the Agency, and the Agency has given its written consent to those changes.
- 2.6.6 At least one month prior to the commencement of capping details of the identities, relevant experience and relevant qualifications of the personnel who will be providing Quality Assurance of the construction shall be submitted in writing to the Agency and acknowledged in writing by the Agency.
- 2.6.7 Within 3 calendar months following completion of the final cap for each cell or phase, the Validation Report on the construction of the final cap for that cell shall be submitted in writing to the Agency.

2.7 Site completion - final landform and engineering.

- 2.7.1 In the event that the specified waste management operations on the site cease and it is confirmed to the Agency that they will not be resumed, the Licence Holder shall ensure that any uncompleted cells or phases are provided with the leachate and landfill gas collection and

extraction systems and final cap and protection required under the other conditions of this licence, so as to achieve a landform that meets the following standards:

- a** maximum gradient of 1 in 3;
- b** minimum gradient of 1 in 25;
- c** surface water is drained from the cell or phase to a surface water drainage system provided in accordance with condition 2.5.1

3 SITE INFRASTRUCTURE

3.1 Provision of site identification board.

- 3.1.1 No wastes shall be received at the site unless an identification board has been provided at or near to the site entrance.
- 3.1.2 The identification board shall be inspected weekly. In the event of damage or defect, the board shall be repaired or replaced within 7 working days.
- 3.1.3 The board shall be easily readable from outside the site entrance during daylight hours, and shall clearly display the following information :-
 - a** Site Name and Address.
 - b** Licence Holder Name.
 - c** Name of Site Operator.
 - d** Licence Number.
 - e** Emergency contact name and telephone number (for security reasons, personal names and home telephone numbers shall not be used except where no alternative is practicable.)
 - f** Statement that the site is licenced by the Environment Agency
 - g** Agency National Telephone Numbers – **0845 9333111** and **0800 807060**.
 - h** Days and times that the site is open to receive waste.

The location of the noticeboard shall be such that it is clear that it does not designate areas outside the licenced site, and does not encourage illegal tipping.

3.2 Site security.

- 3.2.1 Site security systems shall be provided and maintained at all times during the subsistence of this licence, the objective of which shall be to prevent access by humans and livestock, which is not authorised either by the Licence Holder, or under legal powers of entry. These shall be installed, operated and maintained, and shall be fully documented and recorded, in accordance with section 3.2 of the working plan.

4 SITE OPERATIONS

4.1 Control of mud and debris.

Prevention of mud and debris on the road.

- 4.1.1 Whenever the site is receiving or despatching wastes, or landfill engineering works are being undertaken, measures shall be provided, operated and maintained in accordance with section 4.1 of the working plan, with the objective of preventing the deposit or tracking of mud or debris arising from the site onto public areas outside the site, which shall include public highways and areas of public access outside the site.
- 4.1.2 All vehicles leaving areas of the site which are operational or upon which engineering works are being undertaken must, before leaving the site, be effectively cleaned using the specified equipment and shall be checked to ensure that they are clear of loose waste, and that their loads are secure. Vehicle cleaning equipment shall be regularly maintained to maximise efficiency.

Remediation of mud and debris on the road.

- 4.1.3 In the event that mud or debris arising from the site is deposited onto public areas outside the site, remedial measures shall be implemented immediately, in accordance with section 4.1 of the working plan.

4.2 Potentially polluting leaks and spillages of waste.

Potentially polluting leaks and spillages from vehicles, plant and equipment.

- 4.2.1 All vehicles used on site by the operator, and all plant and equipment used on the site in connection with specified waste management operations, shall be operated and maintained with the objective of preventing potentially polluting leaks and spillages of wastes or other potentially polluting materials which are to be used in combination with those wastes in the specified waste management operations.

Control and remediation of leaks and spillages

- 4.2.2 In the event of any potentially polluting leak or spillage occurring on site, documented control and remediation procedures shall be implemented immediately and recorded, in accordance with section 4.2 of the working plan.

Leak and spillage action plan

- 4.2.3 In the event of any leak or spillage which may compromise the effectiveness of the pollution control regime and which is either leading or may lead to pollution of the environment, harm to human health or serious detriment of the amenities of the locality, a Leak and Spillage Action Plan shall be implemented immediately and recorded, in accordance with section 4.2 of the working plan.

4.3 Fires on the site.

Prohibition of unauthorised fires on site

- 4.3.1 No wastes shall be burned on the site other than through a specified waste management operation authorised under the other conditions of this licence.

Fire action plan

- 4.3.2 In the event of a fire on the site (except those which are specified waste management operations under these conditions), a Fire Action Plan shall be implemented immediately and recorded, in accordance with section 4.3 of the working plan.

4.4 Waste acceptance and control procedures.

Waste acceptance procedures

- 4.4.1 All wastes shall be received, inspected, accepted or rejected, and recorded in accordance with section 4.4 of the working plan.

Waste control procedures

- 4.4.2 All wastes accepted at the site shall be handled, kept and recorded in accordance with section 4.4 of the working plan.

Waste despatch procedures

- 4.4.3 All outgoing wastes shall be inspected, despatched and recorded in accordance with section 4.4 of the working plan.

Incompatible wastes

- 4.4.4 Incompatible wastes which are likely, in combination with each other, or with other material at the facility, to give rise to pollution of the environment or harm to human health outside the site, shall be clearly identified and kept physically separate in designated areas, in accordance with section 4.4 of the working plan.

4.5 Waste sampling and testing.

- 4.5.1 A representative sample of incoming wastes shall be sampled and tested to confirm their composition and characteristics in accordance with section 4.4 of the working plan, and in accordance with Table 4.5 overleaf.

Table 4.5 – Waste sampling and testing system standards

Waste types which are required to be sampled	Specified standards for sampling and testing
Wastes defined in section 1.2 of the working plan of the following UK Waste Scheme Classification categories (16 th Draft) :-	Competence of sampling personnel – All personnel undertaking the sampling of wastes in accordance with this section, and section 4.4 of the working plan shall be suitably qualified and experienced in the sampling of wastes.
Category 24 – Contaminated General Wastes (Non-Special)	Sampling protocols – The sampling of wastes shall be undertaken in accordance with predefined protocols, as described in section 4.4 of the working plan.
Category 27 – Mineral Waste and residues from Thermal Processes not listed elsewhere – Non-Special	Sampling frequencies – The sampling of waste shall occur at a defined frequency, as indicated in section 4.4 of the working plan.
Category 29 – Organic Chemical Wastes (Non-Special)	Format and content of records - Records of the sampling of wastes shall be kept by the operator in a suitable format, and made available to the Agency on request. These records shall include details of :- <ul style="list-style-type: none">• The waste producer• The waste carrier• The time and date of receipt at the site• The chemical and physical characteristics of the waste• The time and date of dispatch of the sample to the analytical laboratory• Any remedial action necessary as a result of the sampling (ie. load rejection etc.)
	Accreditation of analytical laboratories – Any third party contractors used for the analysis of the sampled waste should be suitably accredited for the determinands analysed for, under a nationally recognised accreditation scheme.
	Methods of analysis and accuracies – Details of the methods of analysis and accuracies shall be kept and supplied to the Agency on request.

4.6 Waste quantity measurement systems.

Means of measurement

- 4.6.1 All wastes accepted and despatched from the site shall be measured in accordance with section 4.6 of the working plan, and :
- a** The weight of all wastes accepted at and despatched from the site shall be determined by means of a weighbridge.
 - b** The weighbridge shall measure weights to an accuracy of 0.01 tonnes.
 - c** In the case of weighbridge breakdown, the conversion of volume to weight, in tonnes, using volume/weight conversion factors which are specified in the Agency's document entitled '*Factors to convert waste volume to weight (Version 99-01)*', or subsequent revisions thereof.

4.7 Waste discharge and emplacement.

Method and procedures of waste discharge and emplacement

- 4.7.1 No wastes shall be deposited in any phase or cell of the landfill other than in accordance with section 4.7 of the working plan.

4.8 Use of daily and intermediate cover.

Daily cover

- 4.8.1 The working surface of areas of the site used for the deposit of degradable wastes or other non-inert wastes shall be treated so that, by the end of the working day, all parts of such wastes deposited are covered. The methods, materials and depths of cover shall be in accordance with section 4.8 of the working plan.

Intermediate cover

- 4.8.2 In the event that no wastes are deposited in a phase or cell within 7 days of the previous deposit, the surface of that cell or phase shall be provided and maintained with an intermediate cover of sufficient thickness and durability that no waste is exposed, that no uncontrolled aerial releases occur, and to a suitable gradient to ensure that excess rainfall is shed from the surface of the cell or phase into the surface water management system.
- 4.8.3 No wastes shall be deposited on the intermediate cover, other than those required to form part of the engineered final cap and its protection, unless recommencing filling of that cell or phase with the prior consent of the Agency.
- 4.8.4 The methods of installation, maintenance and removal, the materials and the thicknesses of intermediate cover shall be in accordance with section 4.8 of the working plan.

4.9 Removal of residual wastes from site

- 4.9.1 In the event that the specified waste management operations on the site cease, and the Agency has reasonable grounds to believe that they will not be resumed within one month, then, notwithstanding the operational limits on storage times of wastes specified in the other conditions of this licence, the licence holder shall ensure that all wastes remaining on the site shall be removed by the date specified by the Agency in writing.

This shall not apply to any wastes that have been disposed of on the site in accordance with the other conditions of this licence, or prior to the issue of this modification.

5 POLLUTION CONTROL, MONITORING AND REPORTING.

5.1 Monitoring and balancing of landfill gas extraction

Provision of landfill gas monitoring system

- 5.1.1 From the date of issue of this modification, for each cell or phase and for all new cells and phases, an landfill gas extraction monitoring system shall be provided in accordance with the following requirements of this condition, and in accordance with section 5.2 of the working plan. The objective of the landfill gas extraction monitoring system shall be to monitor the landfill gas being extracted from the site, and to enable the operation of the landfill gas collection and extraction system to be balanced against the landfill gas generated from the site.

Design and operational standards for extraction landfill gas monitoring system

- 5.1.2 The landfill gas extraction monitoring system provided for each cell or phase shall be designed, constructed, inspected, maintained, documented and recorded to meet the standards specified in accordance with section 5.2 of the working plan, unless otherwise agreed in writing by the Agency.

Design report on extraction landfill gas monitoring points

- 5.1.3 Prior to the installation of the landfill gas extraction monitoring points for 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 section 5.2 of the working plan. Following written agreement with the Agency of the design report, it shall be incorporated in to the working plan.

Construction quality assurance of extraction landfill gas monitoring points

- 5.1.4 Prior to construction of the landfill gas extraction 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 Construction Quality Assurance Plan for that cell or phase has been submitted.
- 5.1.5 Prior to construction of the landfill gas extraction monitoring points for a cell or phase, details of the identities and relevant qualifications of the personnel who will be providing Quality Assurance of the installation will be submitted to the Agency.
- 5.1.6 The monitoring points for each cell or phase shall be installed and recorded in accordance with the Construction Quality Assurance Plan.
- 5.1.7 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.
- 5.1.8 Within 1 calendar month following completion of the landfill gas extraction monitoring points 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

- 5.1.9 Prior to the commissioning and operation of the landfill gas extraction and collection 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 5.1 below.

Table 5.1 - Standards for quality assurance plan for internal landfill gas monitoring

Landfill gas monitoring and sampling records	Specified standards
Quality assurance of monitoring and sampling	<ul style="list-style-type: none">i. Monitoring shall only be undertaken by suitably competent / qualified staff.ii. Validation of results shall be undertaken by a designated quality assurer adequately experienced in landfill gas engineering.iii. Monitoring equipment shall be calibrated and serviced in accordance with the manufacturers recommendations.
Making of records	<p>Records shall include the following :-</p> <ul style="list-style-type: none">i. Determinands monitored / sampled;ii. Specified details of measurements / samples to support analytical and QA requirements, including dates, times, locations, personnel undertaking monitoring;iii. Results of measurements / sample analyses, with error limits;iv. Validation of accuracy and validity of results, by designated quality assurer.
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 it being undertaken.

Landfill gas extraction monitoring programme

- 5.1.10 Monitoring of landfill gas within the extraction system for each cell or phase shall be undertaken and recorded in accordance with the standards specified in section 5.2 of the working plan.

Landfill gas extraction balancing

- 5.1.11 In the event that any of the results of the landfill gas extraction monitoring exceed the relevant trigger levels specified in section 5.2 of the working plan, immediate action shall be taken to balance the system in order to ensure that the measured values are maintained below the specified trigger levels.

5.2 Monitoring and reporting of emissions from the landfill gas flares

Quality assurance plan for monitoring of flare emissions

- 5.2.1 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 5.2 overleaf.

Table 5.2 - Standards for quality assurance plan for internal landfill gas monitoring	
Landfill gas monitoring and sampling records	Specified standards
Quality assurance of monitoring and sampling	i.) Monitoring shall only be undertaken by suitably competent / qualified staff. ii.) Monitoring equipment shall be calibrated and serviced in accordance with the manufacturers recommendations. iii.) A sample of emission gases shall be collected from each flare within six months of the date of this modification, and then on at least an annual basis, and shall be subjected to laboratory analysis using gas chromatography or an alternative methodology approved in writing by the Agency.
Making of records	Records shall include the following :- i. Determinands monitored / sampled; ii. Specified details of measurements / samples to support analytical and QA requirements, including dates, times, locations, personnel undertaking monitoring; iii. Results of measurements / sample analyses, with error limits; iv. Interpretation and review of results; v. Validation of accuracy and validity of results, by designated quality assurer.
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 it being undertaken.

Emission monitoring and sampling programme

- 5.2.2 Upon commissioning of the landfill gas flare for a cell or phase, and from then on, monitoring of emissions from the flare shall be undertaken to measure and record the determinands specified in section 5.2 of the working plan, in accordance with the specified standards, and the measurements shall be made and recorded in accordance with the quality assurance plan.

Emissions monitoring action plan

- 5.2.3 Prior to the commissioning of each landfill gas flare, an emissions action plan shall be provided, 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.
- 5.2.4 In the event that any results exceed the relevant trigger levels specified in section 5.3 of the working plan :
- a** the results shall be notified to the Agency immediately, and
 - b** the action plan shall be implemented immediately, and recorded in the site diary.

5.3 Monitoring and control of landfill gas utilisation systems and alternative methods of disposal

- 5.3.1 Landfill gas utilisation systems and alternative systems of disposal to landfill gas flaring shall not be installed or implemented for 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 approved in writing by the Agency, in accordance with this condition and section 5.5 of the working plan. Following written approval by the Agency of the quality assurance plan and programme, it shall be incorporated into the working plan.

- 5.3.2 Monitoring and control of emissions from the utilisation system or alternative disposal system shall be undertaken in accordance with the approved quality assurance plan and programme.

5.4 Landfill gas monitoring and reporting external to the waste

Provision of external landfill gas monitoring system

- 5.4.1 An external landfill gas monitoring system shall be provided in accordance with the following requirements and as described by section 5.5 of the working plan :-

- a** before any wastes are deposited in each new cell or phase.

Design report on external landfill gas monitoring system

- 5.4.2 Prior to the installation of the external landfill gas monitoring system for each new 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 section 5.5 of the working plan. Following written approval by the Agency of the design report, it shall be incorporated into the working plan.

Design and operational standards for external landfill gas monitoring system

- 5.4.3 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 section 5.5 of the working plan.

Construction quality assurance of external landfill gas monitoring systems

- 5.4.4 Prior to construction of any fixed engineered components of the external landfill gas monitoring system in a cell or phase, a Construction Quality Assurance Plan covering those elements of the external 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 Construction Quality Assurance plan for that cell or phase has been submitted.
- 5.4.5 Prior to construction of the fixed engineering components of the external 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.
- 5.4.6 The fixed engineering 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.
- 5.4.7 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.
- 5.4.8 Within 1 calendar month following completion of any fixed engineering 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

- 5.4.9 Monitoring and sampling of landfill gas external to the waste body of each phase shall be undertaken in accordance with the standards specified in section 5.5 of the working plan.

Baseline monitoring results (External)

- 5.4.10 No wastes shall be deposited in any new cell or phase unless :
- a** background monitoring has been undertaken in accordance with the external landfill gas monitoring plan for that cell or phase, as detailed in section 5.5 of the working plan 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 results

- 5.4.11 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 section 5.4 of the working plan .

Emissions monitoring action plan

- 5.4.12 Prior to the commissioning of the external landfill gas monitoring system for each cell or phase, an emissions action plan shall be provided 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.
- 5.4.13 In the event that any results are not in accordance with the relevant trigger levels specified in section 5.5 of the working plan :-
- 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.

5.5 Perimeter and surface monitoring and reporting of hydrogen sulphide within the licenced area.

Provision of Hydrogen Sulphide monitoring system.

- 5.5.1 From the date of modification, monitoring of hydrogen sulphide shall be undertaken via a walkover survey in the vicinity of the site in accordance with this condition, section 5.6 of the working plan, and at the fixed locations specified in section 5.6 of the working plan.

Hydrogen sulphide monitoring and sampling programme

- 5.5.2 Monitoring and sampling of hydrogen sulphide external to the waste body shall be undertaken in accordance with section 5.6 of the working plan.

Monitoring and sampling records.

- 5.5.3 A record of the hydrogen sulphide monitoring and sampling results shall be made and submitted to the Agency in accordance with section 5.6 of the working plan.

Hydrogen Sulphide monitoring action plan.

- 5.5.4 In the event that any results exceed the trigger level specified in section 5.6 of the working plan:-
- a** The results shall be notified to the Agency immediately and confirmed in writing immediately;
 - b** The landfill gas action plan specified in section 5.6 of the working plan shall be implemented immediately.
- 5.5.5 The requirement for perimeter and surface monitoring and reporting of hydrogen sulphide within the licenced area shall be reviewed at 1st April 2002 by the Agency, and thereafter at 12 monthly intervals if required.

5.6 Community hydrogen sulphide monitoring procedures.

Provision of Hydrogen Sulphide community monitoring system.

- 5.6.1 From the date of issue of this modification, a minimum of three monitoring stations shall be operated in the local community for continuous and accurate air quality monitoring for hydrogen sulphide. The stations shall be sited so that they are permanent, and provide a representative indication of the air quality in the areas of Clydach Vale, Gelli and Tonypany. The operator shall site a hydrogen sulphide monitor at each station consecutively for a period to be agreed with the Agency, but not less than one month at each station.
- 5.6.2 Monitoring of hydrogen sulphide shall be undertaken in accordance with this condition, and with section 5.7 of the working plan.
- 5.6.3 The requirement for community air quality monitoring shall be reviewed at 1st April 2002 with the Agency, and thereafter at 12 monthly intervals if required.

Hydrogen sulphide monitoring and sampling programme

- 5.6.4 Monitoring and sampling of hydrogen sulphide within the community shall be undertaken in accordance with section 5.7 of the working plan.
- 5.6.5 A record of the hydrogen sulphide monitoring and sampling results shall be made and submitted to the Agency in accordance with section 5.7 of the working plan.

Hydrogen Sulphide monitoring action plan.

- 5.6.6 In the event that any results exceed the trigger level specified in section 5.6.4 of the working plan :-
- a** The results shall be notified to the Agency immediately and confirmed in writing as soon as possible;
 - b** The landfill gas action plan specified in section 5.5.7 of the working plan shall be implemented immediately.

5.7 Monitoring and reporting of meteorological conditions.

Provision of meteorological conditions monitoring system.

- 5.7.1 From the date of modification, meteorological monitoring at the site shall be undertaken in accordance with this condition and section 5.7 of the working plan.

Monitoring records.

- 5.7.2 A record of the weather monitoring results shall be made and submitted to the Agency in accordance with section 5.8 of the working plan.

Weather monitoring action plan.

- 5.7.4 In the event that any results exceed their trigger levels, specified in section 5.7 of the working plan, a meteorological conditions action plan shall be implemented.

5.8 Leachate monitoring and reporting.

Leachate monitoring and sampling programme.

- 5.8.1 From the date of issue of this modification, monitoring and sampling of leachate arising in each cell or phase shall be undertaken and recorded for each of the leachate monitoring points specified in accordance with this condition and section 5.9 of the working plan.

Leachate monitoring and sampling records.

- 5.8.2 A record of the leachate monitoring and sampling results shall be made and submitted to the Agency in accordance with section 5.9 of the working plan.

Leachate generation action plan.

- 5.8.3 In the event that any results exceed the trigger levels specified in section 5.9 of the working plan;

- a** The results shall be notified to the Agency immediately, and confirmed in writing immediately;
- b** The Leachate Generation Action Plan specified in section 5.8.4 of the working plan shall be implemented immediately.

Reference elevations for leachate level monitoring points.

- 5.8.4 On installation of each new leachate level monitoring point, a reference elevation mark shall be permanently inscribed on the leachate monitoring point, and levelled in to Ordnance Datum. The Agency should be informed in writing of the reference elevation and location of each new leachate level monitoring point.
- 5.8.5 If the value of the reference elevation mark is changed as a result of damage, alteration, extension or movement to a monitoring point, the mark shall be re-levelled. Re-levelling shall

take place before the next monitoring round or within two weeks, whichever is the sooner. The Agency should be notified in writing of the new levels.

5.9 Groundwater monitoring and reporting system.

Provision of engineered groundwater monitoring system.

5.9.1 From the date of issue of this modification, engineered groundwater monitoring systems shall be provided to enable monitoring of groundwater outside the waste body in accordance with this condition and section 5.10 of the working plan .

5.9.2 The engineered external groundwater monitoring system provided for each cell or phase shall be:

- a** Designed, constructed, completed and shall be fully documented and recorded; and
- b** Inspected and maintained, and fully documented and recorded in accordance with section 5.10 of the working plan.

Construction quality assurance of groundwater management systems

5.9.3 No wastes shall be deposited in any new cell or phase on the site until:-

- a** a Construction Quality Assurance Plan covering all aspects of the engineered groundwater monitoring system for that cell or phase has been submitted in writing to the Agency, and the Agency has given its written consent to it;
- b** details of the identities, relevant experience and relevant qualifications of the personnel who will be providing Quality Assurance of the construction have been submitted in writing to the Agency and acknowledged in writing by the Agency;
- c** the engineered external groundwater monitoring system has been constructed and recorded in accordance with the Construction Quality Assurance Plan;
- d** changes to the Construction Quality Assurance Plan, quality assurance and detailed method statements as referenced in section 5.10 of the working plan have been notified in writing to the Agency, and the Agency has given its written consent to those changes prior to their implementation;
- e** The Validation Report on the construction of the engineered groundwater monitoring system has been submitted in writing to the Agency and acknowledged in writing by the Agency.

Groundwater monitoring and sampling programme

5.9.4 Monitoring and sampling of groundwater external to the waste body of each cell or phase shall be undertaken and recorded in accordance with section 5.10 of the working plan.

Groundwater monitoring and sampling records.

5.9.5 A record of the groundwater monitoring and sampling results shall be made and submitted to the Agency in accordance with section 5.10 of the working plan.

Groundwater monitoring action plan

- 5.9.6 In the event that any results exceed the trigger level specified in Section 5.10 of the working plan then :-
- a** The results shall be notified to the Agency immediately, and confirmed in writing immediately;
 - b** The groundwater action plan specified in section 5.10.5 of the working plan shall be implemented immediately..

Reference elevations for groundwater monitoring points

- 5.9.7 From the date of issue of this modification, all existing groundwater-monitoring points should be resurveyed in accordance with section 5.9.7 of the working plan.
- 5.9.8 On installation of further groundwater monitoring points, a reference elevation mark shall be permanently inscribed onto the groundwater level monitoring point, and levelled into ordnance datum.
- 5.9.9 If the value of the reference elevation mark is changed as a result of damage, extension or movement to a monitoring point, the mark shall be re-levelled. Re-levelling shall take place before the next monitoring round or within two weeks, whichever is the sooner. The Agency should be notified in writing of the new levels.

5.10 Surface water quality monitoring and reporting systems.

Provision of surface water monitoring system

- 5.10.1 From the date of issue of this modification, surface water quality monitoring shall take place at locations that are physically marked and that are described by section 5.11 of the working plan, to ensure that periodic measurements of quality are taken at the same position.

Surface water monitoring and sampling programme

- 5.10.2 Monitoring and sampling of surface water external to the waste body of each cell or phase shall be undertaken and recorded in accordance with section 5.11 of the working plan.

Monitoring and sampling records

- 5.10.3 A record of the surface water monitoring and sampling results shall be made and submitted to the Agency in accordance with section 5.11 of the working plan.

Surface Water Monitoring Action Plan.

- 5.10.4 In the event that any results exceed the trigger level specified in section 5.11 of the working plan:
- a** The results shall be notified to the Agency immediately, and confirmed in writing immediately;
 - b** The surface water generation action plan specified in section 5.11.5 of the working plan shall be implemented immediately.

6 AMENITY MANAGEMENT AND REPORTING.

6.1 Control, monitoring and reporting of dusts, fibres and particulates.

- 6.1.1 From the date of issue of this modification, measures shall be implemented and maintained throughout the operational life of the site in order to control and monitor emissions of dusts, fibres and particulates from the site, in accordance with this condition, and section 6.1 of the working plan. The objective of these measures shall be to minimise the release of airborne dusts, fibres and particulates arising from the specified waste management operations, and to prevent releases 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.
- 6.1.2 All emissions to air from the specified waste management operations on the site shall be free from visible concentrations of dusts, fibres or particulates 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.
- 6.1.3 In the event that any dusts, fibres or particulates arising from the site are released, or are likely to be released outside the site boundary in such quantities that they are likely to cause pollution of the environment or harm to human health, or serious detriment to the amenity of the locality, the actions specified in section 6.1 of the working plan shall be implemented immediately.

6.2 Control of odours.

- 6.2.1 From the date of issue of this modification, measures shall be implemented and maintained throughout the operational life of the site to control emissions of odours from the site in accordance with this condition, and section 6.2 of the working plan. The objective of these measures shall be to minimise the release of odours from the specified waste management operations, and to prevent releases that are likely to cause pollution of the environment, harm to human health, or serious detriment to the amenity of the locality.
- 6.2.2 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.
- 6.2.3 In the event that any odours arising from the site are released, or are likely to be released, outside the site boundary at such levels that they are likely to cause pollution of the environment, harm to human health or serious detriment to the amenity of the locality, the actions specified in section 6.2 of the working plan shall be implemented immediately.

6.3 Control of pest infestations.

- 6.3.1 From the date of issue of this modification, measures shall be implemented and maintained throughout the operational life of the site to control and monitor the presence of pests on the site, in accordance with section 6.3 of the working plan.

6.4 Control of scavenging birds and other scavengers.

- 6.4.1 From the date of issue of this modification, measures shall be implemented and maintained throughout the operational life of the site to control and monitor the presence of scavenging birds and other scavengers on the site, in accordance with section 6.4 of the working plan.

6.5 Control of litter.

- 6.5.1 From the date of issue of this modification, measures shall be implemented and maintained throughout the operational life of the site to control and monitor the escape of litter from the confines of the site, in accordance with section 6.5 of the working plan.
- 6.5.2 In the event that litter does escape from the site, it shall be retrieved as soon as practicable.

7 SITE RECORDS

7.1 Security and availability of records.

Security of records

- 7.1.1 All records which are required to be made under the other conditions of this licence and the working plan shall be made and kept secure from loss, damage and deterioration.

Availability of records

All records which are required to be made under the other conditions of this licence and the working plan shall be made available for inspection at the place where they are kept immediately when required by an authorised officer of the Agency.

7.2 Records of waste movements.

- 7.2.1 A record shall be kept of all wastes received and of all materials (wastes and recovered materials) removed from the site. The records shall include the following for each vehicle load of waste/material:

for waste received:

- a** origin of waste
- b** date received
- c** quantities in tonnes received and waste type
- d** nature of the waste (solid, liquid or sludge)

for waste/material removed:

- a** date removed
- b** quantities in tonnes removed and waste and/or material type
- c** destination of waste and/or materials removed
- d** nature of the waste and/or materials (solid, liquid or sludge)

- 7.2.2 A summary of the information, including nil returns, shall be submitted to the Agency, in the format specified by the Agency in Annexe 1 attached to this licence which forms part of this condition. Summaries shall be for each quarter of the financial year and shall be submitted to the Agency within one month of the end of each quarter.

7.3 Site diary.

- 7.3.1 A site diary shall be kept secure and shall be available for inspection at the site when required by an authorised officer of the Agency. This shall include a record of the following events :-

- a** start and finish of construction and engineering works;
- b** start and of finish of waste management processes carried on at the site;
- c** plant maintenance and break downs;
- d** emergencies;
- e** problems with wastes received and actions taken;

- f** sampling exercises;
- g** site inspections, their findings and their remedial responses;
- h** dispatch of records to the Agency;
- i** environmental problems and their remedial actions;
- j** dates and times when Technically Competent Manager enters and leaves site.

Each record shall be completed within 24 hours of the relevant event.

7.4 Periodic reporting of environmental performance.

7.4.1 From the date of issue of this modification, the Licence Holder shall provide the Agency on an annual basis or such other time as is agreed in writing with the Agency, a report on the environmental performance of the site, which shall include the following information :-

- a** An analysis and review of the environmental monitoring results recorded for the site under these conditions, with an interpretation of the trend of the results against background and trigger levels, and reference standards;
- b** A review of the risk assessment for the site, taking account of the findings under **a**
- c** Where changes to the risk assessment are identified under **b**, a review of the risk management systems provided for the site.

8 INTERPRETATION

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

“accepted”

for waste being delivered to the site, shall mean accepted as waste input to the site for storage and/or processing and/or disposal under the specified waste management operations;

“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;

“clinical waste”

has the meaning as defined in regulation 1(2) of the Controlled Waste Regulations 1992 or any statutory provisions amending or replacing them;

“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;

“engineered landfill containment system”

means all elements (other than leachate and landfill gas management systems, and intermediate and final caps), relating to engineered liners for final disposal to land, and incorporating liners for individual cells and the site as a whole, and including methods of liner protection and leakage detection;

“engineered site containment and drainage system”

means all elements relating to engineered containment of activities on the site, other than final disposal to land, and incorporating site surfacing, bunding and drainage systems, buildings and fixed tanks;

“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;

“engineering survey”

means a survey carried out in accordance with recognised or approved standards by a suitably qualified competent person;

"environmental targets or receptors,"

for **risk assessments** carried out within these conditions, shall mean identified human and environmental populations or components, as specified in these conditions or otherwise agreed by the Agency within these conditions;

"groundwater"

means any water contained in underground strata;

"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);

"inert waste "

means waste which when disposed of in or on land does not undergo any significant physical, chemical or biological transformation;

"landfill gas management system"

means all elements relating to landfill gas extraction from individual landfill cells and the landfill mass as a whole, and incorporating methods of landfill gas drainage, containment and the subsequent disposal system, whether it be a methane oxidation system, landfill gas flare, landfill gas engine(s) or otherwise, either on or off the site;

"leachate management system"

means all elements relating to leachate extraction from individual landfill cells and the landfill mass as a whole, and incorporating methods of leachate drainage, containment and the subsequent treatment and/or disposal system, either on or off the site;

"maintenance"

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

"preparatory works"

means engineering works required prior to the carrying out of the activities authorised by this licence;

"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;**

"relevant offences"

are offences within the meaning of regulation 3 of the Waste Management Licensing Regulations 1994 or any statutory provisions or regulations amending or replacing them;

"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;

"special waste"

has the meaning as defined by regulation 2 of the Special Waste Regulations 1996 or any statutory provisions or regulations amending or replacing them;

"specified waste management operations"

means the waste management operations authorised by condition 1.1 of this licence;

"surface water management system"

means all elements relating to collection of rain water or surface water from individual landfill phases and the landfill site as a whole, and incorporating methods of water collection, containment and the subsequent treatment and/or disposal system, either on or off the site;

"surface water"

means any lake, pond, river or watercourse whether natural or artificial;

“the 1994 Regulations”

means the Waste Management Licensing Regulations 1994 and any statutory provisions or regulations amending or replacing them.

“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 this 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.

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;

ANNEXE 1

Environmental Protection Act 1990
Section 35(1)(a) Quarterly Returns

Instructions on the format for the summary waste record returns required in Licence condition 7.2.1

Introduction

Your waste management licence condition no. 7.2.1 requires you to provide to the Agency a summary of the records which you must keep of all wastes received and of all waste materials removed from the site. This set of instructions specifies the format of the summary which is required by the Agency. A standard form is provided (Ref. 00/IA) which you must use when completing summary returns to comply with the licence condition. Please retain it as a master and photocopy it each time you make a return. An electronic version is available on request.

Waste type and quantity

You are required to identify waste types according to the categories specified in the accompanying list (Ref.00/IB). This shows how particular waste streams fit in to the classification system. Most licensed sites will find that they are only dealing with a small number of categories of material and it is worth looking through the list carefully to identify the waste groups that you handle at your site.

Waste quantity needs to be provided in metric tonnes. A density conversion list is provided to allow bulk loads to be converted to tonnes on sites without weighing equipment.

District of Origin/Destination

You are required to identify the source and destination of the waste by local authority District. This information can be found from transfer notes, from the driver of the vehicle or maybe within your own record systems if you are operating vehicles yourself. A list of three letter codes for all the Unitary Authorities in Wales and adjacent English authorities is attached. The local authority Districts in your immediate area are entered on your site return form, as it is likely that these are the main sources of material entering the site. Use the code list to add in any extra areas required, or write in the District name in full.

Your Legal Responsibility

Your licence condition requires you to keep a record of each load of waste/material entering your site and each load of waste or reclaimed material leaving the site. A summary of this information has to be provided to the Agency on a quarterly basis (or on an annual basis for metal recycling facilities).

Daily site records

For waste/material entering the site you need to record

- the date and time of the movement;
- the district of origin;
- the type and quantity; and
- whether it is solid/liquid or sludge i.e. the physical state of the waste.

For all wastes/materials leaving the site (for either recovery or disposal) you must record

- the date and time of the movement;
- the destination district;
- the type and quantity; and
- whether it is solid/liquid or sludge.

You may be using a record sheet at present, or a ticketing system, and provided this allows you to record all of the information required by the licence condition, this will be an appropriate form. For those who do not have a suitable system, we have enclosed an example daily record sheet for you to use.

Quarterly Returns

The standard quarterly return form allows small and large sites to describe the wastes and other materials entering and leaving their site.

Most sites handle a limited range of wastes and only need to complete a relatively small part of the return form. Inert landfill sites have been supplied with a reduced form that reflects the very limited types of waste they handle.

Although the Agency has asked for quarterly returns, it is advisable for this analysis to be done more frequently: perhaps weekly or monthly.

General Information

The first part of the form is asking for general information to identify the site. It is also necessary to indicate whether materials are weighed in and out of the site, or whether weights are estimated.

It is advisable to complete most of this section, other than the quarter and year, prior to photocopying and use this as your master form.

Section 1: Waste/materials entering the site

Summarise the information on your daily record system to provide the total amount of waste in each category received from every different District of origin. Please note that the waste categories are exclusive (i.e. construction wastes should not be included in the category for general mixed industrial wastes).

An example of a completed section 1 is shown in the following pages.

Section 2 – Waste materials taken off site for disposal elsewhere

You may have a major transfer station producing a large range of sorted waste materials for disposal elsewhere; or an inert landfill site with an occasional load of contrary material that needs to leave the site for disposal elsewhere; or another type of facility where wastes leave your site for final disposal elsewhere.

Your licence requires you to keep a record of all loads of leaving the site for disposal elsewhere, stating waste type, quantity, state and District of destination. Use the code sheets to decide which category of waste each load falls into and the District of destination code.

An example Section 2 return is shown in the following pages. If you have no wastes leaving the site for disposal elsewhere this quarter, write NIL across the sheet. If you need more space to write in a larger number of waste groups, photocopy the Section 2 page to make a continuation sheet.

Section 3 – Materials taken off site for recycling

This section is completed in exactly the same way as Section 2, but is for wastes leaving the site for recycling.

Example 3 in the following pages shows the output of waste materials for recycling from a metal recycling site.

If you have no wastes leaving for recycling, write NIL across the sheet. If you need more space to write in a larger number of waste groups, photocopy the Section 3 page to make a continuation sheet.

Section 4 – This section is optional and applies to landfill sites only. The information will be essential for the development of the future Waste Strategy for Wales and is required by planning authorities for future development planning for waste management facilities.

Section 5 – You **MUST** complete the declaration, and then send the return to your area office within one month following the end of the quarter. The address of the area office is provided at the end of this section of the quantity return sheet

Help

If you require any further information on any of these issues please call the Environment Agency general enquiry line on 0645 333111.

Accompanying documents

The following accompanying documents should be used in association with this set of instructions:

- i) *Environment Agency North Wales/South East Wales/South West Wales/Upper Severn Area Section 35 EPA Quarterly return - Ref. 00/IA.* (you must complete this form when making your summary return to the Agency)
- ii) *Waste Categories for Wales - Ref. 00/IB* [on blue paper] (you must use these categories when completing the summary return form)
- iii) *Factors to Convert Waste Volume to Weight* [on green paper] (you can use these conversion factors when converting volume to weight)
- iv) *District Codes* [on pink paper] (you must use these codes when completing the summary return form)
- v) *Example Sheet for Recording Daily Loads In/Out* (this is not a mandatory form but you could use it to satisfy the Agency's requirements for daily input/output record).