



ENVIRONMENT
AGENCY

Permit with introductory note

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

Bryn Pica Landfill Site
Cynon Valley Waste Disposal
Company Limited
Llwydcoed
Aberdare
Rhondda Cynon Taff
CF44 0BX

Permit number

DP3732SQ

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Introductory note

Permit

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Bryn Pica landfill site

Permit Number DP3732SQ

Introductory note

This introductory note does not form a part of the Permit

The main features of the installation are as follows.

Bryn Pica landfill site is located within former open cast coal mine workings situated on the side of the Cynon Valley within the South Wales coal field approximately 2km north of the town of Aberdare. The installation is bounded on all sides by rough pasture and woodland. The site is enclosed from the north and north-east by a ridge called the Mynydd Aberdar, which forms the watershed between the Cynon and Taff valleys. Two residential properties are located to the west and south of the landfill area at a distance greater than 300 metres from the site boundary. The installation extends to some 28 hectares and is operated by Amgen Cymru (the trading name of the Cynon Valley Waste Disposal Company Ltd)

The landfill has been constructed using a phased approach. Phase 1 was historically developed using a “dilute and disperse” approach whereas all subsequent phases (Phases 2 to 5) were provided with engineered containment systems. All new cells will be engineered using a composite liner system constructed upon a 30 metre unsaturated geological barrier consisting of colliery spoil. This barrier is to be supplemented with 300mm of selected and processed colliery spoil, a geo-synthetic clay liner and a flexible membrane liner.

Leachate is extracted from leachate wells within each of the Cells to a number of leachate holding lagoons from where it is piped to the main Cynon Valley Trunk Sewer and subsequently treated at Cynon Wastewater Treatment Works. Surface water is collected into settlement ponds to allow any solids to settle out of suspension before being discharged into an unnamed tributary of the River Cynon. The site is also equipped with active landfill gas controls. Landfill gas is abstracted from wells and utilised for power generation purposes. Surplus gas is controlled with the use of a high temperature flare unit. The Gas Utilisation Plant is subject to a separate PPC permit held by Novera Energy Generation No2 Limited.

The site is permitted to accept inert and non-hazardous wastes from household, commercial and industrial sources. The site may also accept asbestos wastes, which must be deposited within specially constructed cells to ensure that there is no direct physical contact between asbestos containing wastes and biodegradable wastes. The site may accept up to a maximum of 200,000 tonnes of waste inputs per year.

Status Log of the Permit

Detail	Date	Response Date
Application DP3732SQ	Received 6 May 2005	Duly Made Letter Sent 18 May 2005
Further Information	Received 17 March 2006	Not Applicable
Permit determined	Issued: 20/06/06	

Other PPC Permits relating to this installation

Operator	Permit Number	Date of Issue
Novera Energy Generation No2 Limited	XP3436SY	08 November 2005

Permit Number DP3732SQ

Superseded or Partially Superseded Licences/Authorisations / Consents relating to this installation			
Holder	Reference Number	Date of Issue	Fully or Partially Superseded
Cynon Valley Waste Disposal Company Ltd	2/93 (EAWML 30104)	20 July 1993	Partially – Landfill Only
Amgen Cymru	AN0335101	14 August 2003	Fully

Other existing Licences / Authorisations/Registrations relating to this site		
Holder	Reference Number	Date of issue
Water Quality Discharge Consent	AN0294001	22 November 1999
Waste Management Licence: Composting, Civic Amenity and Recycling Site	EAWML 30104	20 July 1993

End of Introductory Note

Permit

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

Permit

Permit number

DP3732SQ

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

Cynon Valley Waste Disposal Company Ltd ("the Operator"),

of/ whose Registered Office (or principal place of business) is

Bryn Pica Landfill Site

Llwydcoed

Aberdare

Rhondda Cynon Taff

CF44 0BX

Company registration number 02660628

to operate an installation at

Bryn Pica Landfill Site

Llwydcoed

Aberdare

Rhondda Cynon Taff

CF44 0BX

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

Signed

Date

	20th June 2006
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Luke Prazsky, Strategic Permitting Group Team Leader, Aust, Bristol

Authorised to sign on behalf of the Agency

Permit Number DP3732SQ

Conditions

1. Management

1.1 General management

- 1.1.1 The Activities shall be managed and operated:
- (a) in accordance with a management system, which identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents and non-conformances and those drawn to the attention of the Operator as a result of complaints; and
 - (b) by sufficient persons who are competent in respect of the responsibilities to be undertaken by them in connection with the operation of the Activities.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this Permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

1.2 Accidents that may cause pollution

- 1.2.1 The Operator shall:
- (a) maintain and implement an accident management plan;
 - (b) review and record at least every 4 years or as soon as practicable after an accident, (whichever is the earlier) whether changes to the plan should be made;
 - (c) make any appropriate changes to the plan identified by a review.

1.3 Finance

- 1.3.1 The financial provision for meeting the obligations under this Permit set out in the Operator's letter dated (include serial number for identification)/ Agreement made between the Operator and the Agency dated shall be maintained by the Operator throughout the subsistence of this Permit and the Operator shall produce evidence of such provision whenever required by the Agency.
- 1.3.2 The Operator shall ensure that the charges it makes for the disposal of waste in the landfill cover all of the following:
- (a) the costs of setting up and operating the landfill;
 - (b) the costs of the financial provision required by condition 1.3.1; and
 - (c) the estimated costs for the closure and aftercare of the landfill.

1.4 Energy efficiency

- 1.4.1 The Operator shall:
- (a) Review and record at least every 4 years whether there are suitable opportunities to improve the energy efficiency of the Activities; and

- (b) Implement any appropriate measures identified by a review.

1.5 Site security

- 1.5.1 Site security measures shall prevent unauthorised access to the Site, as far as practicable.

1.6 Multiple operator installations

- 1.6.1 The following conditions apply as a result of interactions between the Permits covering this installation:
- 1.6.2 The operator of the Landfill permit DP3732SQ shall be responsible for the extraction of gas from the landfill and all the gas supply pipe work up until it reaches the point at which it reaches the gas engine compound boundary. Responsibility shall then transfer to the holder of permit XP3436SY. The Operator of the Landfill also holds responsibility for the collected condensate that is returned to the leachate handling system contained within the boundary of permit DP3732SQ and the flaring of landfill gas that cannot be utilised within the gas utilisation plant authorised by permit XP3436SY.
- 1.6.3 Both Operators on the site shall co-operate to ensure the safe extraction and combustion of the landfill gas using the systems they have agreed and set out in the application

2. Operations

2.1 Permitted activities

- 2.1.1 The Operator is authorised to carry out the activities specified in Schedule 1 Table S1.1 (the "Activities").

2.2 The site

- 2.2.1 The Activities shall not extend beyond the Site, being the land shown edged in green on the Site Plan at Schedule 2 to this Permit.

2.3 Operating techniques

- 2.3.1 The Activities shall, subject to the conditions of this Permit, be operated using the techniques and in the manner described in the documentation specified in Schedule 1 Table S1.2, unless otherwise agreed in writing by the Agency.

2.4 Off-site conditions

- 2.4.1 There are no conditions in this Permit to which Regulation 12(12) of the PPC Regulations apply.

2.5 Improvement programme

- 2.5.1 The Operator shall complete the improvements specified in Schedule 1 Table S1.3 by the date specified in that table unless otherwise agreed in writing by the Agency.

- 2.5.2 Except in the case of an improvement which consists only of a submission to the Agency, the Operator shall notify the Agency within 14 days of completion of each improvement.

2.6 Pre-operational conditions

- 2.6.1 The operations specified in Schedule 1 Table S1.4B shall not commence until the measures specified in that table have been completed.

2.7 Engineering

- 2.7.1 No construction of any new cell shall commence until the Operator has submitted Construction Proposals and the Agency has confirmed that it is satisfied with the Construction Proposals.
- 2.7.2 The construction of a New Cell shall take place only in accordance with the approved Construction Proposals unless:
- (a) any change to the approved Construction Proposals would have no impact on the performance of any element of the design; or
 - (b) a change has otherwise been agreed in writing by the Agency.
- 2.7.3 No disposal of waste shall take place in a New Cell until the Operator has submitted a CQA Validation Report and the Agency has confirmed that it is satisfied with the CQA Validation Report.
- 2.7.4 No construction of Landfill Infrastructure shall commence until the Operator has submitted relevant Construction Proposals or a written request to use previous Construction Proposals and the Agency has confirmed that it is satisfied with the Construction Proposals.
- 2.7.5 The construction of the Landfill Infrastructure shall take place only in accordance with the approved Construction Proposals unless:
- (a) any change to the approved Construction Proposals would have no impact on the performance of any element of the design; or
 - (b) a change has otherwise been agreed in writing by the Agency.
- 2.7.6 The Operator shall submit a CQA Validation Report as soon as practicable following the construction of the relevant Landfill Infrastructure.
- 2.7.7 Where pollution controls are immediately necessary to prevent an incident or accident, then conditions 2.7.4 and 2.7.5 do not apply and the relevant Landfill Infrastructure may be constructed, provided that the Construction Proposals are submitted to the Agency as soon as practicable.
- 2.7.8 For the purposes of conditions 2.7.1, 2.7.3 and 2.7.4, the Agency shall be deemed to be satisfied where it has not, within the period of 4 weeks from the date of receipt of the relevant Construction Proposals or CQA Validation Report, either:
- (a) confirmed whether or not it is satisfied; or
 - (b) informed the Operator that it requires further information.

2.8 Waste acceptance

2.8.1 Wastes shall only be accepted for disposal if:

- (a) they are listed in Schedule 3, and
- (b) they are non- hazardous waste or asbestos and construction materials containing asbestos, and
- (c) from 16th July 2006 they are not whole used tyres (other than bicycle tyres and tyres with an outside diameter of more than 1400mm), and
- (d) from 16th July 2006 they are not shredded used tyres, and
- (e) from 30th October 2007 they are not liquid waste (including waste waters but excluding sludge), and
- (f) they are not chemical substances from research and development or teaching activities, for example laboratory residues, which are unidentified and/or which are new and whose effects on man and/or the environment are unknown, and
- (g) all the relevant waste acceptance procedures set out in Schedule 1 of the Landfill Regulations have been completed, and
- (h) they fulfil the relevant waste acceptance criteria, and
- (i) they have not been diluted or mixed solely to meet the relevant waste acceptance criteria, and
- (j) from 30th October 2007 they are wastes which have been treated, except for: inert wastes for which treatment is not technically feasible; or it is waste other than inert waste and treatment would not reduce its quantity or the hazards which it poses to human health or the environment.

2.8.2 Asbestos waste and construction material containing asbestos shall only be disposed of in cells dedicated to those wastes. Asbestos waste and construction material containing asbestos must meet the relevant waste acceptance criteria and must be covered daily and before each compaction operation with appropriate material. No other waste shall be disposed of in the self-contained cell.

2.8.3 Gypsum and other high sulphate bearing waste shall only be disposed of in cells where no biodegradable waste is accepted. Wastes disposed of in a cell with gypsum and other high sulphate bearing wastes must meet the relevant waste acceptance criteria.

2.8.4 The Operator shall visually inspect:

- (a) without unloading it, waste that is not in an enclosed container or enclosed vehicle on arrival at the landfill; and
- (b) waste at the point of deposit;

and shall satisfy itself that it conforms to the basic characterisation documentation submitted by the holder.

2.8.6 Where the Operator has taken samples to establish that the waste is in conformity with the documentation submitted by the holder then the samples taken shall be retained for at least one month and results of any analysis for at least two years.

2.8.7 The Operator on accepting each delivery of waste shall provide a receipt to the person delivering it.

- 2.8.8** The total quantity of waste that shall be deposited in the landfill shall be limited by the pre-settlement levels shown on drawing AM5458/ESID4.
- 2.8.9 The quantity of waste that is deposited in the landfill in any year shall not exceed the limits in Schedule 1 Table S1.5.
- 2.8.10 The Operator shall maintain and implement a system which ensures that a record is made of the quantity, characteristics, date of delivery and, where practicable, origin of any waste that is received for disposal or recovery and of the identity of the producer, or in the case of municipal waste and multiple collection vehicles, of the collector of such waste. Any information regarded by the Operator as commercially confidential shall be clearly identified in the record.

2.8.3 Leachate levels

- 2.9.1 The limits for the level of leachate listed in Table S4.1 of Schedule 4 shall not be exceeded.

2.10 Closure, aftercare and decommissioning

- 2.10.1 The Operator shall maintain and operate the Activities so as to prevent or where that is not practicable, to minimise, any pollution risk on closure and decommissioning.
- 2.10.2 The Operator shall maintain a Site Closure Plan which demonstrates how the Activities can be decommissioned to avoid any pollution risk and return the site of operation to a satisfactory state.
- 2.10.3 The Operator shall carry out and record a review of the Site Closure Plan at least every 4 years.
- 2.10.4 The Site Closure Plan (or relevant part thereof) shall be implemented on final cessation or decommissioning of the Activities or part thereof.

2.11 Site protection and monitoring programme

- 2.11.1 The Operator shall, within 2 months of the issue of this Permit, submit a Site Protection and Monitoring Programme.
- 2.11.2 The Operator shall implement and maintain the Site Protection and Monitoring Programme in relation to all areas which will not comprise permanent deposits of waste and shall carry out and record a review of it at least every 4 years commencing from the date the Site Protection and Monitoring Programme was received.

3. Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in Tables S4.2, S4.3 and S4.4 of Schedule 4.
- 3.1.2 The limits given in that Schedule shall not be exceeded, save that compliance with an emission limit shall include incorporation of the uncertainty allowance stated in Agency guidance LFTGN 05 and LFTGN 08.

3.2 Emissions to groundwater

- 3.2.1 There shall be no emission from the Activities into groundwater of any substance in List I (as defined by the Groundwater Regulations) contrary to those Regulations.
- 3.2.2 There shall be no emission from the Activities into groundwater of any substance in List II (as defined in the Groundwater Regulations) so as to cause pollution (as defined in those Regulations).
- 3.2.3 The trigger levels for emissions into groundwater for the parameter(s) and monitoring point(s) set out in Table S4.5 of Schedule 4 shall not be exceeded.
- 3.2.4 The Operator shall submit to the Agency a review of the Hydrogeological Risk Assessment:
 - (a) between 9 and 6 months prior to the fourth anniversary of the granting of the Permit, and
 - (b) between 9 and 6 months prior to every subsequent 4 years after the fourth anniversary of the granting of the Permit.

3.3 Fugitive emissions of substances

- 3.3.1 Fugitive emissions of substances (excluding odour, noise and vibration) shall not cause pollution. The Operator shall not be taken to have breached this condition if appropriate measures have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.3.2 Litter or mud arising from the Activities shall not cause pollution. The Operator shall not be taken to have breached this condition if appropriate measures have been used to prevent or where that is not practicable to minimise, the litter and mud.
- 3.3.3 Litter or mud arising from the Activities shall be cleared from affected areas outside the Site as soon as practicable.
- 3.3.4 All liquids, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the Operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.
- 3.3.5 The measured values from the monitoring specified in Table S4.6 of Schedule 4 shall not exceed the limits for the parameter(s) at the monitoring point(s) listed in that schedule.

3.4 Odour

- 3.4.1 Emissions from the Activities shall be free from odour at levels likely to cause annoyance outside the Site, as perceived by an Authorised Officer of the Agency, unless the Operator has used appropriate measures to prevent or where that is not practicable to minimise the odour.

3.5 Noise and vibration

- 3.5.1 Emissions from the Activities shall be free from noise and vibration at levels likely to cause annoyance outside the Site, as perceived by an Authorised Officer of the Agency, unless the Operator has used appropriate measures to prevent or where that is not practicable to minimise the noise and vibration.

3.6 Monitoring

- 3.6.1 The Operator shall, unless otherwise agreed in writing by the Agency, undertake monitoring for the parameters, at the locations and at not less than the frequencies specified in the following tables in Schedule 4 to this Permit:
- (a) Leachate specified in Tables S4.1 and S4.9;
 - (b) Point source emissions specified in Tables S4.2, S4.3 and S4.4;
 - (c) Groundwater specified in Tables S4.5 and S4.11;
 - (d) Landfill gas specified in Tables S4.6 and S4.8; and
 - (e) Surface water specified in Table S4.10;
- 3.6.2 The Operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.6.3 A topographical survey of the Site referenced to Ordnance Datum shall be carried out:
- (a) annually, and
 - (b) prior to the disposal of waste in any new cell or new development area of the landfill, and
 - (c) following closure of the landfill or part of the landfill.
- The topographical survey shall be used to produce a plan of a scale adequate to show the surveyed features of the Site.
- 3.6.4 Within 6 months of the issue of this Permit (unless otherwise agreed in writing by the Agency) the site reference data identified in the Site Protection and Monitoring Programme shall be collected and submitted to the Agency.

4. Information

4.1 Records

- 4.1.1 All records required to be made by this Permit shall:
- (a) be legible;
 - (b) be made as soon as reasonably practicable;
 - (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and

- (d) be retained, unless otherwise agreed in writing by the Agency, for at least 6 years from the date when the records were made, or in the case of the following records until Permit surrender:
 - (i) the results of groundwater monitoring;
 - (ii) the Site Protection and Monitoring Programme;
 - (iii) sub-surface landfill gas monitoring;
 - (iv) leachate levels, quality and quantities;
 - (v) landfill gas generation and collection;
 - (vi) waste types and quantities;
 - (vii) topographical surveys; and
 - (viii) the location of asbestos and construction materials containing asbestos waste deposits; and
 - (ix) the specification and as built drawings of the basal, sidewall and capping engineering systems

4.2 Reporting

4.2.1 A report or reports on the performance of the Activities over the previous year shall be submitted to the Agency by 31 January (or other date agreed in writing by the Agency) each year. The report(s) shall include as a minimum:

- (a) a review of the results of the monitoring and assessment carried out in accordance with this Permit against the relevant assumptions, parameters and results in the risk assessments submitted with the Application;
- (b) where the Operator's management system encompasses annual improvement targets, a summary report of the previous year's progress against such targets;
- (c) the energy consumed at the Site, reported in the format set out in Schedule 5 Table S5.3
- (d) the water consumed at the Site, reported in the format set out in Schedule 5 Table S5.3;
- (e) the annual production/treatment set out in Schedule 5 Table S5.2.
- (f) details of any contamination or decontamination of the Site which has occurred;
- (g) the topographical surveys required by condition 3.6.3 other than those submitted as part of a CQA validation report;
- (h) the volumetric difference (reported in cubic metres) between the most recent topographical survey and the previous annual topographical survey i.e. the additional volume of the landfill void that is occupied by waste;
- (i) an assessment of the settlement behavior of the landfill body based on the difference between the most recent topographical survey and previous annual topographical survey for the areas of the landfill which did not receive waste between the surveys;
- (j) a calculation of the remaining capacity (reported in cubic metres) derived from the pre-settlement contours and the most recent topographical survey;

- (k) the compliance testing undertaken in the period;
- 4.2.2 Within 28 days of the end of the reporting period the Operator shall, unless otherwise agreed in writing by the Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
 - (a) in respect of the parameters and emission points specified in Table S5.1 of Schedule 5;
 - (b) for the reporting periods specified in Table S5.1 of Schedule 5 and using the forms specified in Table S5.4 of Schedule 5; and
 - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.3 A summary report of the waste types and quantities accepted and removed from the site shall be made for each quarter. It shall be submitted to the Agency within one month of the end of the quarter and shall be in the format required by the Agency.
- 4.2.4 The Operator shall, unless notice under this condition has been served within the preceding 4 years, submit to the Agency, within 6 months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.
- 4.2.5 The results of reviews and any changes made to the Site Protection and Monitoring Programme shall be reported to the Agency, within 1 month of the review or change.

4.3 Notifications

- 4.3.1 The Agency shall be notified without delay following the detection of:
 - (a) any malfunction, breakdown or failure of equipment or techniques, accident, or fugitive emission which has caused, is causing or may cause significant pollution;
 - (b) the breach of a limit specified in the Permit;
 - (c) any significant adverse environmental effects.
- 4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in Schedule 6 to this Permit within the time period specified in that schedule.
- 4.3.3. Prior written notification shall be given to the Agency of the following events and in the specified timescales:
 - (a) as soon as practicable prior to the permanent cessation of any of the permitted activities;
 - (b) as soon as practicable prior to the cessation of the landfill disposal activities, for a period likely to exceed 1 month; and
 - (c) at least 7 days prior to the resumption of the landfill disposal activities after a cessation notified under (b) above.
- 4.3.4 The Agency shall be given at least 14 days notice before implementing any part of the Site Closure Plan in respect of any activities other than the disposal of waste in the landfill.

- 4.3.5 Where the Agency has requested in writing that it shall be notified when the Operator is to undertake monitoring and/or spot sampling, the Operator shall inform the Agency when the relevant monitoring is to take place. The Operator shall provide this information to the Agency at least 14 days before the date the monitoring is to be undertaken.
- 4.3.6 The Agency shall be notified within 7 days of any changes in technically competent management and the name of any incoming person together with evidence that such person has the required technical competence.
- 4.3.7 The Agency shall be provided, within 14 days of the Operator or any relevant person being convicted of a relevant offence, (unless such information has already been notified to the Agency), with details of the nature of the offence, the place and date of conviction, and the sentence imposed.
- 4.3.8 The Agency shall be notified within 14 days of the Operator and/or any relevant person lodging an appeal against a conviction for any relevant offence and of the outcome when the appeal is decided.
- 4.3.9 The Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:
- (a) any change in the Operator's trading name, registered name or registered office address;
 - (b) any change to particulars of the Operator's ultimate holding company (including details of an ultimate holding company where an Operator has become a subsidiary); and
 - (c) any steps taken with a view to the Operator going into administration, entering into a company voluntary arrangement or being wound up.

4.4 Interpretation

- 4.4.1 In this Permit the expressions listed in Schedule 7 shall have the meaning given in that schedule.

Schedule 1 - Operations

Table S1.1 Activities

Activity listed in Schedule 1 of the PPC Regulations	Description of specified activity	Limits of specified activity
Section 5.2 Part A(1) (a). The disposal of waste in a landfill.	Landfill for non-hazardous waste (landfill classification under the Landfill Regulations 2002)	Receipt, handling, storage and disposal of wastes, consisting of the types and quantities specified in condition 2.8, as an integral part of landfilling. Permitted wastes include asbestos and construction materials containing asbestos.
Directly Associated Activities		
Landfill gas management	Flaring of landfill gas	Landfill gas arising from the permitted landfill
Leachate Management	Storage of leachate prior to discharge to sewer	Leachate arising from the permitted landfill
Leachate discharge to foul sewer	Discharge of leachate from the landfill.	From leachate management system to point of entry to sewer.
Water discharges to controlled waters	Discharge of site drainage from the landfill.	From surface water management system to point of entry to controlled waters
Fuel Storage	Storage of fuel for operation of plant and equipment	Fuel storage tank

Table S1.2 Operating Techniques

Description	Parts	Date Received
Application	The response to questions 1.3, 1.4, 2.1, 2.2, 2.3, 2.4, 2.5, 2.7, 2.8, 2.9, 2.11 and 3.1 in Part B of the Application Form	6 May 2005
Further Information	Correspondence from Encia Consulting Ltd reference LF/cam/368 dated 16/03/06 including revised drawing AM5458/ESID11 revision 1 approved 14/3/06.	17 March 2006
Further Information	Revised drawing AM5458/ESID16 revision B approved 16/3/06.	11 April 2006
Improvement Programme	All reports and plans submitted and agreed with the Agency, as part the Improvement Programme detailed in Table S1.3 shall form part of the sites operating techniques.	See Improvement Programme in Table S1.3

Table S1.3 Improvement Programme Requirements

Reference	Requirement	Date
1	<p>The operator shall revise drawing AM5458/ESID08 to include details of:</p> <ul style="list-style-type: none"> • All perimeter gas monitoring boreholes. • All gas collection wells. • All in waste monitoring boreholes. <p>Each well or monitoring point should be referenced with a unique identifier.</p>	14 July 2006
2	<p>The operator shall submit to the Agency, a report detailing the site's waste acceptance procedures. The report shall be prepared in accordance with Agency guidance entitled "Guidance for waste destined for disposal in landfills – Interpretation of the waste acceptance requirements of the landfill (England and Wales) Regulations 2002 (as amended)" and include, but not be limited to the following issues:</p> <ul style="list-style-type: none"> • The waste acceptance criteria for the installation. • Level 1 basic characterisation of wastes: quality assured procedures and method of recording the results. • Level 2 compliance testing of wastes: quality assured procedures and method of recording the results. • Level 3 On-site Verification of wastes: quality assured procedures and method of recording the results. • Sampling plan, including quality assured methods and procedures for sampling and testing of wastes and method of recording the results. • Method for checking that the waste has been treated before delivery to the installation and recording the results. • Method for ensuring that waste is stored and handled properly prior to final deposit. • Method for ensuring that wastes that have been rejected during the acceptance procedures are removed from the installation within 24 hours of the quarantine container becoming full, and in any event within 5 days of receipt at the installation. • Method for ensuring that the Agency is notified as soon as reasonably possible if a waste delivery is rejected. <p>The operator shall implement any improvements or measures as agreed in writing with the Environment Agency.</p>	01 September 2006
3	<p>The operator shall submit to the Agency, a report describing the security arrangements at the installation. The report shall include, but not be limited to the following issues:</p> <ul style="list-style-type: none"> • type of security; • design standards for physical security, detailing design and specification, including access; • operational standards for security, including operational and out-of-hours provisions, and • maintenance and repair schedules. <p>The operator shall implement any improvements or measures as agreed in writing with the Environment Agency.</p>	01 August 2006
4	<p>The operator shall agree the format and content of reporting forms required to be submitted under condition 4.2.2.</p>	01 September 2006

Table S1.3 Improvement Programme Requirements

5	<p>The operator shall submit to the Agency an odour management plan. The plan shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> • Control measures to prevent or control odour. • A justification that there will not be an odour problem from the emissions under normal conditions. • Identification of the actions to be taken in the event of abnormal events or conditions which might lead to odour, or potential odour problems. • An understanding of the impact in the event of abnormal events or conditions, for example the failure of a landfill gas flares. • Impact of any leachate recirculation; • Monitoring undertaken. • Notification of odour events. • Odour control is not a once-off activity and requires a constant re-evaluation of control techniques and this should form part of the odour management plan. <p>The operator shall implement any improvements or measures as agreed in writing with the Environment Agency.</p>	01 October 2006
6	<p>The operator shall review the site procedures for the prevention of mud escaping the site. The review shall include, but not be limited to, the following issues :</p> <ul style="list-style-type: none"> • The requirement for the use of effective wheel and body cleaners to remove mud and debris from vehicles prior to their leaving the site; • Wash water should be re-used, effective wheel and body cleaners should not connect to other water management systems and should be located on an impermeable surface to facilitate the collection of wash water. • Supervision of the use of wheel wash to ensure that vehicles use the equipment correctly; • Maintenance (e.g. regular water changes for wet systems) of wheel wash equipment; • Procedures to ensure main site roads are maintained in a mud free condition, for example by employing a mechanical sweeper/washer; • Roadway construction. Site roads should have a permanent hard surface to enable sweepers and washers to be effective; • Monitoring of any site roads between final wheel wash and public highway; • Monitoring of the public highway. <p>The operator shall implement any improvements or measures as agreed in writing with the Environment Agency.</p>	01 November 2006

Table S1.3 Improvement Programme Requirements

7	<p>The operator shall submit to the Agency a surface water management plan. The plan shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> • Drawings of the design and specification of all current surface water management drainage systems employed at the site (e.g. drainage ditches, lagoons etc). • Details of phasing of future works; • Details of all surface water treatment methods; • Demonstration by the use of rainfall and other meteorological data that surface water drainage system is designed to cope with storm events including details of the volume of surface water to be controlled; • Measures to ensure rainwater running off areas outside the landfill is intercepted and channelled away from construction, operational and post-closure phases; • Maintenance and repair of drainage channels and lagoons. • Review of the location and number of monitoring points. • Review of monitoring suite using all available monitoring data. • The setting/review of control and trigger levels for surface water management monitoring points where appropriate. • A timetable detailing any relevant works to be completed. <p>The operator shall implement any improvements or measures as agreed in writing with the Environment Agency.</p>	01 April 2007
8	<p>The operator shall install a minimum of one up-gradient (on eastern perimeter) and a minimum of two down-gradient borehole (on western perimeter) of sufficient depth to enable groundwater levels and quality to be monitored. Prior to their installation the operator shall submit to the Agency, for approval, a CQA plan detailing the design and specification, scale drawings and locations for each proposed monitoring borehole. Within fourteen days of installation the operator shall provide to the Agency a CQA report that includes the following details:</p> <ul style="list-style-type: none"> • As built drawings of the groundwater monitoring boreholes. • As built location plan of groundwater monitoring boreholes. The headworks completion levels of all boreholes must be surveyed relative to Ordnance Datum. • Maintenance programme and deadlines for its repair and replacement. <p>The operator shall implement any improvements or measures as approved in writing with the Environment Agency. All new boreholes installed shall be incorporated into the site monitoring plan and monitored in accordance with the requirements of Tables S4.5, S4.11 and Schedule 5.</p>	01 July 2007

Table S1.3 Improvement Programme Requirements

9	<p>The operator shall submit to the Agency a Landfill Gas Management Plan prepared in accordance with LFTGN03 "Guidance on the Management of Landfill Gas". The management plan shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> • A full justification for the spacing of perimeter landfill gas boreholes and probes identifying the location, design and monitoring regime of any additional boreholes found to be necessary. • Evidence that the capacity of the treatment system is sufficient to deal with the volume of gas generated at the landfill. The flaring capacity should be sufficient to treat all the gas when utilisation equipment is off line. • A detailed plan of suitable scale indicating existing and proposed monitoring points, extraction wells and configuration of carrier pipework. • A review of all available gas monitoring data. • A site specific monitoring plan for surface emissions produced in accordance with "Guidance on monitoring landfill gas surface emissions. LFTGN07". The first survey shall be undertaken within six months of completion of the monitoring plan. • The responsibilities of the Operator to the point of transfer to the Gas Utilisation Compound. The proposals shall be consistent with those of the other operators on the Installation and indicate a suitable level of co-operation and co-ordination. <p>The operator shall implement any improvements or measures as agreed in writing with the Environment Agency.</p>	01 July 2007
10	<p>The Operator shall undertake an assessment of the impact on the water environment from current emissions of effluent to sewer. The operator shall use the methodology prescribed in the Agency's guidance 'Environmental Assessment and Appraisal of BAT' (Ref. IPPC H1) in making this assessment. The Operator shall identify substances present in the effluent that are considered significant, and submit proposed emission limit values for these substances in the form of a report. Flow rate must also be considered as part of this assessment. The report shall also include an effluent monitoring plan for any key substances identified and an action plan to reduce releases of those substances that are considered significant as part of the H1 Assessment. The operator shall implement any improvements or measures as agreed in writing with the Environment Agency.</p>	01 January 2007
11	<p>The operator shall submit to the Agency, a report detailing site procedures for the monitoring of particulate matter including dusts and fibres. The report shall be prepared in accordance with Agency guidance entitled "M17 – Monitoring of particulate matter in ambient air around waste facilities". The operator shall implement any improvements or measures as agreed in writing with the Environment Agency.</p>	01 December 2006

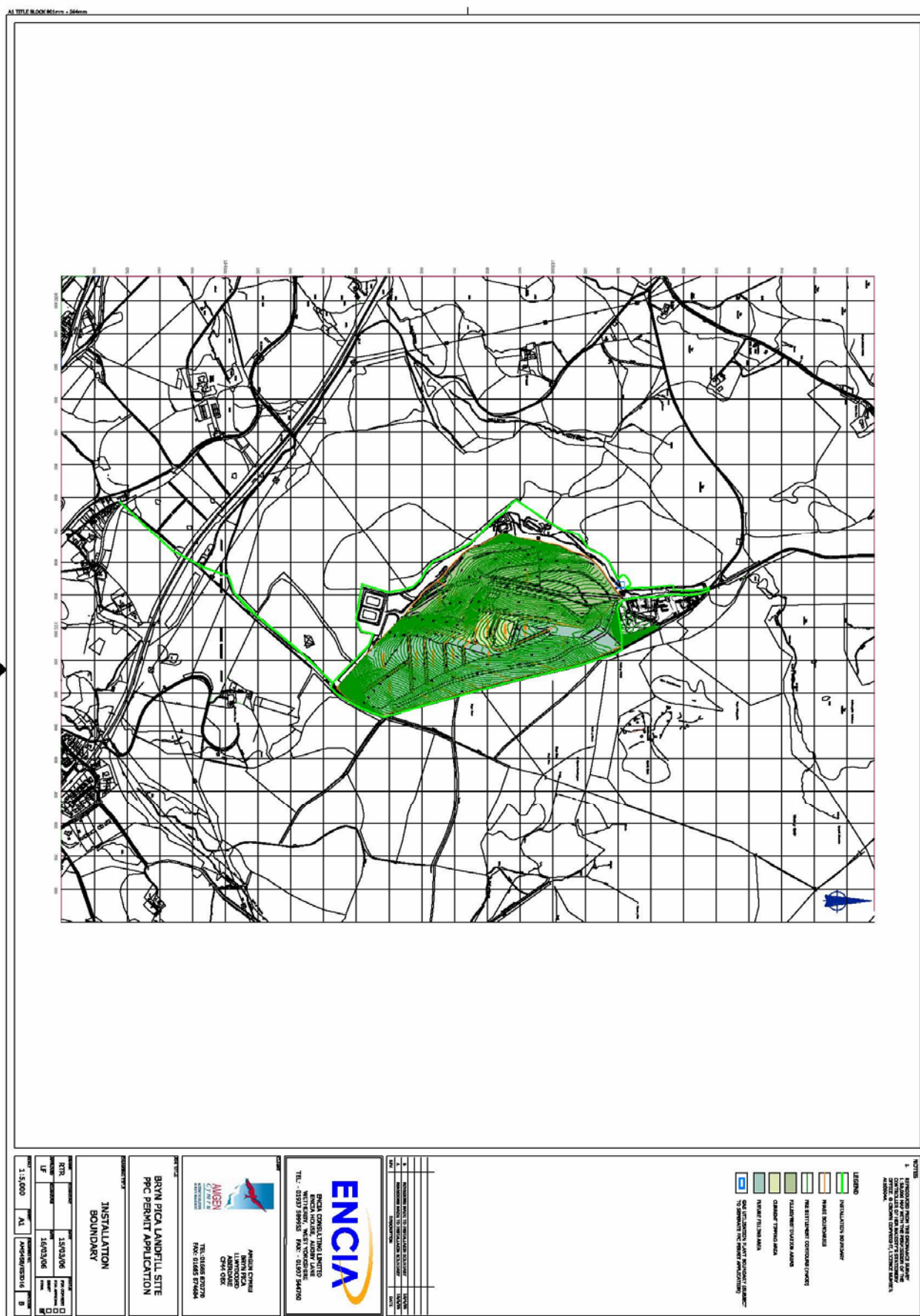
Table S1.4B Pre-operational Measures for Future Development

Reference	Operation	Pre-operational Measures
1	Prior to the construction of any new cells for non-hazardous wastes within Phases 3, 4 and 5 as detailed in drawing AM5458/ESID6A.	<p>The design of all future cells to be constructed at the site shall include the following design details and only varied based on justification agreed in writing with the Environment Agency:</p> <ul style="list-style-type: none"> • A leachate drainage blanket of 500mm thickness. • If tyres are to be utilised as the drainage blanket a revised stability risk assessment should be undertaken in accordance with Environment Agency 'R&D Technical Report P1-385/TR1 and TR2 on Stability of Landfill Lining Systems'. • A minimum of one target pad to be installed per cell. • At least two level monitoring points in addition to a collection sump should be provided for each hydraulically separated cell of less than 5 hectares in size. For larger cells the number of monitoring points shall be agreed in writing with the Agency. • The design and specification of leachate carrier pipework. Unless otherwise agreed in writing with the Agency all collection pipework must be accessible by Closed Circuit Television and able to be cleaned by jetting or other appropriate means. The use of upslope risers rather than vertical extraction wells should be considered where appropriate. <p>The operator shall implement any improvements or measures as agreed in writing with the Environment Agency.</p>
2	Prior to the acceptance of asbestos wastes and construction material containing asbestos in cells within any new cells constructed within phases 3, 4 and 5 as detailed in drawing AM5458/ESID6A.	<p>The operator shall provide a report detailing the design and specification of any proposed asbestos cell. The report shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> • The specification of all construction materials. • Construction quality assurance procedures. <p>The proposed design shall meet the requirements detailed in 'Landfill Directive Regulatory Guidance Note 11' issued by the Environment Agency and ensure:</p> <ul style="list-style-type: none"> • There is no direct physical contact between asbestos containing wastes and biodegradable non-hazardous waste. • Located so there is limited contact of landfill gas and leachate from the biodegradable wastes with the asbestos wastes. <p>The operator shall implement any improvements or measures as agreed in writing with the Environment Agency.</p>

Table S1.5 Annual Waste Input Limits

Category	Limit Tonnes / Year
Non-hazardous Waste	189,000
Inert Waste	10,000
Asbestos waste and construction material containing asbestos	1,000

Schedule 2 - Site plan



Schedule 3 - List of permitted wastes

01 WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS

01 01 wastes from mineral excavation

- 01 01 01 waste from mineral metalliferous excavation
- 01 01 02 waste from mineral non-metalliferous excavation

01 03 wastes from physical and chemical processing of metalliferous minerals

- 01 03 06 tailings other than those mentioned in 01 03 04 and 01 03 05
- 01 03 08 dusty and powdery waste other than those mentioned in 01 03 07
- 01 03 09 red mud from alumina production other than those mentioned in 01 03 07

01 04 wastes from physical and chemical processing of non metalliferous minerals

- 01 04 08 waste gravel and crushed rocks other than those mentioned in 01 04 07
- 01 04 09 waste sand and clays
- 01 04 10 dusty powdery waste other than those mentioned in 01 04 07
- 01 04 11 waste from potash and rock salt processing other than those in 01 04 07
- 01 04 12 tailings and other wastes from washing and cleaning of minerals other than those mentioned in 01 04 07 and 01 04 11
- 01 04 13 waste from stone cutting and sawing other than those mentioned in 01 04 07

01 05 drilling muds and other drilling wastes

- 01 05 04 fresh-water drilling muds and wastes
- 01 05 07 barite-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06
- 01 05 08 chloride-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06

02 WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING

02 01 wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing

- 02 01 01 sludges from washing and cleaning
- 02 01 02 animal tissue waste
- 02 01 03 plant tissue waste
- 02 01 04 waste plastics (except packaging)
- 02 01 06 animal faeces, urine and manure (including spoiled straw), effluent, collected separately and treated off-site.
- 02 01 07 waste from forestry
- 02 01 09 agrochemical waste other than those mentioned in 02 01 08
- 02 01 10 waste metal

02 03 wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; tobacco processing; yeast and yeast extract production, molasses preparation and fermentation

- 02 03 01 sludges from washing, cleaning, peeling, centrifuging and separation
- 02 03 02 waste from preserving agents
- 02 03 03 waste from solvent extraction
- 02 03 04 materials unsuitable for consumption or processing
- 02 03 05 sludges from on-site effluent treatment

02 04 wastes from sugar processing

- 02 04 01 soil from cleaning and washing beet
- 02 04 02 off-specification calcium carbonate
- 02 04 03 sludges from on-site effluent treatment

02 05 wastes from the dairy products industry

- 02 05 01 materials unsuitable for consumption or processing
- 02 05 02 sludges from on-site effluent treatment

02 06 wastes from baking and confectionary industry

- 02 06 01 materials unsuitable for consumption or processing
- 02 06 02 waste from preserving agents
- 02 06 03 sludges from on-site effluent treatment

02 07 wastes from the production of alcoholic and non alcoholic beverages (except coffee, tea and cocoa)

- 02 07 01 waste from washing, cleaning and mechanical reduction of raw materials
- 02 07 02 waste from spirits distillation
- 02 07 03 waste from chemical treatment
- 02 07 04 materials unsuitable for consumption or processing
- 02 07 05 sludges from on-site effluent treatment

03 WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURNITURE, PULP, PAPER AND CARDBOARD

03 01 wastes from wood processing and the production of panels and furniture

- 03 01 01 waste bark and cork
- 03 01 05 shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04.

03 03 wastes from pulp, paper and cardboard production and processing

- 03 03 01 waste bark and wood
- 03 03 02 green liquor sludge (from recovery of cooking liquor)
- 03 03 05 de-inking sludges from paper recycling
- 03 03 07 mechanically separated rejects from pulping of paper and cardboard
- 03 03 08 waste from sorting of paper and cardboard destined for recycling
- 03 03 09 lime mud waste
- 03 03 10 fibre rejects, fibre-, filler- and coating sludges from mechanical separation
- 03 03 11 sludges from on-site effluent treatment other than those mentioned in 03 10

03 WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES

04 01 wastes from leather and fur industry

- 04 01 01 fleshings and lime split waste
- 04 01 02 liming waste
- 04 01 06 sludges, in particular from on-site effluent treatment containing chromium
- 04 01 07 sludges, in particular from on-site effluent treatment free of chromium
- 04 01 08 waste tanned leather (blue sheetings, shavings, cuttings, buffing dust) containing chromium
- 04 01 09 waste from dressing and finishing

04 02 wastes from the textile industry

- 04 02 09 waste from composite materials (impregnated textile, elastomer, plastomer)
- 04 02 10 organic matter from natural products (e.g. grease, wax)
- 04 02 15 wastes from finishing other than those mentioned in 04 02 14
- 04 02 17 dyestuffs and pigments other than those mentioned in 04 02 16
- 04 02 20 sludges from on-site effluent treatment other than those mentioned in 04 02 19
- 04 02 21 waste from unprocessed textile fibres
- 04 02 22 waste from processed textile fibres

05 WASTES FROM PETROLEUM REFINING, NATURAL GAS PURIFICATION AND PYROLYTIC TREATMENT OF COAL

05 01 waste from petroleum refining

- 05 01 10 sludges from on-site effluent treatment other than those mentioned in 05 01 09
- 05 01 13 boiler feedwater sludges
- 05 01 14 waste from cooling columns
- 05 01 16 sulphur containing waste from petroleum desulphurisation
- 05 01 17 Bitumen

05 06 wastes from the pyrolytic treatment of coal

- 05 06 04 waste from cooling columns

05 07 wastes from natural gas purification

- 05 07 02 waste containing sulphur

06 WASTES FROM INORGANIC CHEMICAL PROCESSES

06 03 wastes from the MSFU of salts and their solutions and metallic oxides

- 06 03 14 solid salts and their solutions other than those mentioned in 06 03 11 and 06 03 15
- 06 03 16 metallic oxides other than those mentioned in 06 03 15

06 05 sludges from on-site effluent treatment

- 06 05 03 sludges from on-site effluent treatment other than those mentioned in 06 05 02

06 06 wastes from the MSFU of sulphur chemicals, sulphur chemical processes and desulphurisation processes

- 06 06 03 wastes containing sulphides other than those mentioned in 06 06 02

06 09 wastes from the MSFU of phosphorus chemicals and phosphorus chemical processes

- 06 09 02 phosphorous slag
- 06 09 04 calcium based reaction wastes other than those mentioned in 06 09 03

06 11 waste from the manufacture of inorganic pigments and opacifiers

- 06 11 01 calcium based reaction waste from titanium dioxide production

06 13 wastes from the MFSU of other inorganic chemicals and other inorganic chemical processes

- 06 13 03 carbon black
- 06 13 04* wastes from asbestos processing (in stable non reactive form only)

07 WASTES FROM ORGANIC CHEMICAL PROCESSES

07 01 wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals

- 07 01 12 sludges from on-site effluent treatment other than those mentioned in 07 01 11

07 02 wastes from the MFSU of plastics, synthetic rubber manmade fibres

- 07 02 12 sludges from on-site effluent treatment other than those mentioned in 07 02 11
- 07 02 13 waste plastic
- 07 02 15 waste additives other than those mentioned in 07 02 14
- 07 02 17 wastes containing silicones other than those mentioned in 07 02 16

07 03 wastes from the MFSU of organic dyes and pigments (except 06 11)

- 07 03 12 sludges from on-site effluent treatment other than those mentioned in 07 03 11

07 04 wastes from the MFSU of organic pesticides

- 07 04 12 sludges from on-site effluent treatment other than those mentioned in 07 04 11

07 05 wastes from the MFSU of pharmaceuticals

07 05 12 sludges from on-site effluent treatment other than those mentioned in 07 05 11
07 05 14 solid wastes other than those mentioned in 07 05 13

07 06 wastes from the MFSU of fats, grease, soaps, detergents disinfectants and cosmetics

07 06 12 sludges from on-site effluent treatment other than those mentioned in 07 06 11

07 07 wastes from the MFSU of fine chemicals and chemical products not otherwise specified

07 07 12 sludges from on-site effluent treatment other than those mentioned in 07 07 11

08 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS

08 01 wastes from MFSU and removal of paint and varnish

08 01 12 waste paint other than those mentioned in 08 01 11
08 01 14 sludges from paint other than those mentioned in 08 01 13
08 01 16 aqueous sludges containing paint or varnish other than those mentioned in 08 01 15
08 01 18 waste from paint or varnish removal other than those mentioned in 08 01 17

08 02 wastes from MFSU of other coatings

08 02 01 waste coating powders
08 02 02 aqueous sludges containing ceramic materials

08 03 wastes from MFSU of printing inks

08 03 07 aqueous sludges containing ink
08 03 13 waste printing ink other than those mentioned in 08 03 12
08 03 15 ink sludges other than those mentioned in 08 03 14
08 03 18 waste printing other than those mentioned in 08 03 17

08 04 wastes from MFSU of adhesives and sealants (including waterproofing products)

08 04 10 waste adhesives and sealants other than those mentioned in 08 04 09
08 04 12 adhesive and sealant sludges other than those mentioned in 08 04 11
08 04 14 aqueous sludges containing adhesives or sealants other than those mentioned in 08 04 13

09 WASTES FROM THE PHOTOGRAPHIC INDUSTRY

09 01 wastes from the photographic industry

09 01 07 photographic film and paper containing silver or silver compounds
09 01 08 photographic film and paper free of silver or silver compounds
09 01 10 single-use cameras without batteries
09 01 12 single-use cameras containing batteries other than those mentioned in 09 01 11

10 WASTES FROM THERMAL PROCESSES

10 01 wastes from power stations and other combustion plants (except 19)

10 01 01 bottom ash, slag and boiler dust (excluding boiler ash mentioned in 10 01 04)
10 01 02 coal fly ash
10 01 03 fly ash from peat and untreated wood
10 01 05 calcium-based reaction waste from flue gas desulphurisation in solid form
10 01 07 calcium-based reaction waste from flue gas desulphurisation in sludge form.
10 01 15 bottom ash, slag and boiler dust from co-incineration other than those mentioned in 10 01 14
10 01 17 fly ash from co-incineration other than those mentioned in 10 01 16
10 01 19 waste from gas cleaning other than those mentioned in 10 01 05, 10 01 07 & 10 01 18
10 01 21 sludges from on-site effluent treatment other than those mentioned in 10 01 20

10 01 23 aqueous sludges from boiler cleansing other than those mentioned in 10 01 20
10 01 24 sands from fluidized beds
10 01 25 waste from fuel storage and preparation of coal-fire power plants
10 01 26 wastes from cooling water treatment

10 02 wastes from the iron and steel industry

10 02 01 waste from the processing of slag
10 02 02 unprocessed slag
10 02 08 solid waste from gas treatment other than those mentioned in 10 02 07
10 02 10 mill scales
10 02 12 waste from cooling water treatment other than those mentioned in 10 02 11
10 02 14 sludges and filter cakes from gas treatment other than those mentioned in 10 02 13
10 02 15 other sludges and filter cakes

10 03 wastes from aluminium thermal metallurgy

10 03 02 anode scraps
10 03 05 waste alumina
10 03 16 skimmings other than those mentioned in 10 03 15
10 03 18 carbon containing waste from anode manufacture other than those mentioned in 10 03 17
10 03 20 flue gas dust than those mentioned in 10 03 19
10 03 22 other particulates and dust (including ball mill dust) other than those mentioned in 10 03 21
10 03 24 solid waste from gas treatment other than those mentioned in 10 03 23
10 03 26 sludges and filter cakes from gas treatment other than those mentioned in 10 03 25
10 03 28 waste from cooling water treatment other than those mentioned in 10 03 27
10 03 30 waste from treatment of salt slags and black drosses other than those mentioned in 10 03 29

10 04 wastes from lead thermal metallurgy

10 04 10 wastes from cooling-water treatment other than those mentioned in 10 04 09

10 05 wastes from zinc thermal metallurgy

10 05 01 slags from primary and secondary production
10 05 04 other particulates and dust
10 05 09 waste from cooling water treatment other than those mentioned in 10 05 08
10 05 11 dross and skimmings other than those mentioned in 10 05 10

10 06 wastes from copper thermal metallurgy

10 06 01 slags from primary and secondary production
10 06 02 dross and skimmings from primary and secondary production
10 06 04 other particulates and dust
10 06 10 waste from cooling water treatment other than those mentioned in 10 06 09

10 07 wastes from silver, gold and platinum thermal metallurgy

10 07 01 slags from primary and secondary production.
10 07 02 dross and skimmings from primary and secondary production
10 07 03 solid waste from gas treatment
10 07 04 other particulates and dust
10 07 05 sludges and filter cakes from gas treatment
10 07 08 waste from cooling water treatment other than those mentioned in 10 07 07

10 08 wastes from other non-ferrous thermal metallurgy

10 08 04 particulates and dust
10 08 09 other slags
10 08 11 dross and skimmings other than those mentioned in 10 08 10
10 08 13 carbon containing waste from anode manufacture other than those mentioned in 10 08 12
10 08 14 anode scrap
10 08 16 flue gas dust other than those mentioned in 10 08 15
10 08 18 sludges & filter cakes from flue gas treatment other than those mentioned in 10 08 17
10 08 20 waste from cooling water treatment other than those mentioned in 10 08 19

10 09 wastes from casting of ferrous pieces

- 10 09 03 furnace slag
- 10 09 06 casting cores and moulds which have not undergone pouring other than those mentioned in 10 09 05
- 10 09 08 casting cores and moulds which have undergone pouring other than those mentioned in 10 09 07
- 10 09 10 flue gas dust other than those mentioned in 10 09 09
- 10 09 12 other particulates other than those mentioned in 10 09 11
- 10 09 14 waste organic binders other than those mentioned in 10 09 13
- 10 09 16 waste crack indicating agent other than those mentioned in 10 09 15

10 10 wastes from casting of non ferrous pieces

- 10 10 03 furnace slag
- 10 10 06 casting cores and moulds which have not undergone pouring other than those mentioned in 10 10 05
- 10 10 08 casting cores and moulds which have undergone pouring other than those mentioned in 10 10 07
- 10 10 10 flue gas dust other than those mentioned in 10 10 09
- 10 10 12 other particulates other than those mentioned in 10 10 11
- 10 10 14 waste organic binders other than those mentioned in 10 10 13
- 10 10 16 waste crack indicating agent other than those mentioned in 10 10 15

10 11 wastes from manufacture of glass and glass products

- 10 11 03 waste glass-based fibrous materials
- 10 11 05 particulates and dust
- 10 11 10 waste preparation mixture before thermal processing other than those mentioned in 10 11 09
- 10 11 12 waste glass other than those mentioned in 10 11 11
- 10 11 14 glass polishing and grinding sludge other than those mentioned in 10 11 13
- 10 11 16 solid waste from flue gas treatment other than those mentioned in 10 11 15
- 10 11 18 sludges and filter cakes from gas treatment other than those mentioned in 10 11 17
- 10 11 20 solid wastes from on site effluent treatment other than those mentioned in 10 11 19

10 12 wastes from manufacture of ceramic goods, bricks, tiles and construction products

- 10 12 01 waste preparation mixture before thermal processing
- 10 12 03 particulates and dust
- 10 12 05 sludges and filter cakes from gas treatment
- 10 12 06 discarded moulds
- 10 12 08 waste ceramics, bricks, tiles and construction products (after thermal processing)
- 10 12 10 solid waste from gas treatment other than those mentioned in 10 12 09
- 10 12 12 waste from glazing other than those mentioned in 10 12 11
- 10 12 13 sludge from on-site effluent treatment

10 13 wastes from manufacture of cement, lime and plaster and articles and products made from them

- 10 13 01 waste preparation mixture before thermal processing
- 10 13 04 waste from calcination and hydration of lime
- 10 13 06 particulates and dust (except 10 13 12, 10 13 13)
- 10 13 07 sludges and filter cakes from gas treatment
- 10 13 10 waste from asbestos cement manufacture other than those mentioned in 10 13 09
- 10 13 11 waste from cement based composite materials other than those mentioned in 10 13 09 and 10 13 10
- 10 13 13 solid waste from gas treatment other than those mentioned in 10 13 12
- 10 13 14 waste concrete and concrete sludge

11 WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO-METALLURGY

11 01 wastes from chemical surface treatment and coating of metals and other materials (e.g. Galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising)

11 01 10 sludges and filter cakes other than those mentioned in 11 01 09

11 01 14 degreasing waste other than those mentioned in 11 01 13

11 02 wastes and sludges from non-ferrous hydrometallurgical processes

11 02 03 waste from the production of anodes for aqueous electrolytical processes

11 02 06 wastes from copper hydrometallurgical processes other than those mentioned in 11 02 05

11 05 wastes from hot galvanising processes

11 05 01 hard zinc

11 05 02 zinc ash

12 WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS

12 01 wastes from shaping and surface treatment of metals and plastics

12 01 01 ferrous metal filings and turnings

12 01 02 ferrous metal dust and particles

12 01 03 non-ferrous metal filings and turnings

12 01 04 non-ferrous metal dust and particles

12 01 05 plastic shavings and turnings

12 01 13 welding waste

12 01 15 machining sludges other than those mentioned 12 01 14

12 01 17 waste blasting material other than those mentioned in 12 01 16

12 01 21 spent grinding bodies and grinding materials other than those mentioned in 12 01 20

15 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED

15 01 packaging

15 01 01 paper and cardboard packaging

15 01 02 plastic packaging

15 01 03 wooden packaging

15 01 04 metallic packaging

15 01 05 composite packaging

15 01 06 mixed packaging

15 01 07 glass packaging

15 01 09 textile packaging

15 02 absorbents, filter materials, wiping cloths and protective clothing

15 02 03 absorbents, filter materials, wiping clothes and protective clothing other than those mentioned in 15 02 02

16 WASTES NOT OTHERWISE SPECIFIED IN THE LIST

16 01 end-of-life vehicles and waste from dismantling of end-of life vehicles and vehicle maintenance

16 01 11* brake pads containing asbestos (in stable non reactive form)

16 01 12 brake pads other than those mentioned in 16 01 11

16 01 16 tanks for liquefied gas

16 01 17 ferrous metal

16 01 18 non-ferrous metal

16 01 19 plastic
16 01 20 glass
16 01 22 components wastes not otherwise specified

16 02 wastes from electrical and electronic equipment

16 02 14 discarded equipment other than those mentioned in 16 02 09 to 16 02 13
16 02 16 components removed from discarded equipment other than those mentioned in 16 02 15

16 03 off-specification batches

16 03 04 inorganic off-specification batches other than those mentioned in 16 03 03
16 03 06 organic off-specification batches other than those mentioned in 16 03 05

16 05 gas in pressure containers and discarded chemicals

16 05 09 discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08

16 06 batteries and accumulators

16 06 04 alkaline batteries (except 16 06 03)
16 06 05 other batteries and accumulators

16 08 spent catalysts

16 08 01 spent catalysts containing gold, silver, rhenium, rhodium, palladium, iridium or platinum (except 16 08 07)
16 08 03 spent catalysts containing transition metals or transition metal compounds not otherwise specified.

16 11 waste linings and refractories

16 11 02 carbon based linings and refractories from metallurgical processes other than those mentioned in 16 11 01
16 11 04 other linings and refractories from metallurgical processes other than those mentioned in 16 11 03
16 11 06 linings and refractories from non-metallurgical processes other than those mentioned in 16 11 05

17 CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)

17 01 concrete, bricks, tiles and ceramics

17 01 01 concrete
17 01 02 bricks
17 01 03 tiles and ceramics
17 01 07 mixtures of concrete bricks, tiles and ceramics other than those mentioned in 17 01 06

17 02 wood, glass and plastic

17 02 01 wood
17 02 02 glass
17 02 03 plastic

17 03 bituminous mixtures, tar and tarred products

17 03 02 bituminous mixtures other than those mentioned in 17 03 01

17 04 metals (including their alloys)

17 04 01 copper, bronze, brass
17 04 02 aluminium
17 04 03 lead
17 04 04 zinc
17 04 05 iron and steel
17 04 06 tin
17 04 07 mixed metals
17 04 11 cables other than those mentioned in 17 04 10

17 05 soil (including excavated soil from contaminated sites), stones and dredging spoil

17 05 04 soil and stones other than those mentioned in 17 05 03

17 05 06 dredging spoil other than those mentioned in 17 05 05

17 05 08 track ballast other than those mentioned in 17 05 07

17 06 insulation materials and asbestos-based construction materials

17 06 01* insulation materials containing asbestos (in stable non reactive form)

17 06 04 insulation materials other than those mentioned in 17 06 01 and 17 06 03

17 06 05* construction materials containing asbestos

17 08 gypsum based construction material

17 08 02 gypsum based construction materials other than those mentioned in 17 08 01

17 09 other construction and demolition waste

17 09 04 mixed construction and demolition waste other than those mentioned in 17 09 01, 17 09 02 and 17 09 03

18 WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (except kitchen and restaurant wastes not arising from immediate health care)

18 01 wastes from natal care, diagnosis, treatment or prevention of disease in humans

18 01 01 sharps (except 18 01 03)

18 01 04 waste whose collection and disposal is not subject to special requirements in view of the prevention of infection (e.g. dressings, plaster casts, linen, disposable clothing, diapers)

18 01 07 chemicals other than those mentioned in 18 01 06

18 01 09 medicines other than those mentioned in 18 01 08

18 02 wastes from research, diagnosis, treatment or prevention of disease involving animals

18 02 01 sharps (except 18 02 02)

18 02 03 waste whose collection and disposal is not subject to special requirements in view of the prevention of infection

18 02 06 chemicals other than those mentioned in 18 02 05

18 02 08 medicines other than those mentioned in 18 02 07

19 WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE

19 01 wastes from incineration or pyrolysis of waste

19 01 02 ferrous materials removed from bottom ash

19 01 12 bottom ash and slag other than those mentioned in 19 01 11

19 01 14 fly ash other than those mentioned in 19 01 13

19 01 16 boiler dust other than those mentioned in 19 01 15

19 01 18 pyrolysis wastes other than those mentioned in 19 01 17

19 01 19 sands from fluidized beds

19 02 wastes from physico/chemical treatments of waste

19 02 03 premixed waste composed only of non-hazardous wastes

19 02 06 sludges from physico/chemical treatment other than those mentioned in 19 02 05

19 02 10 combustible wastes other than those mentioned in 19 02 08 and 19 02 09

19 03 stabilised/solidified wastes

19 03 05 stabilised waste other than those mentioned in 19 03 04

19 03 07 solidified waste other than those mentioned in 19 03 06

19 04 vitrified waste and wastes from vitrification

19 04 01 vitrified waste

19 05 wastes from aerobic treatment of solid wastes

19 05 01 non-composted fraction of municipal and similar waste

19 05 02 non-composted fraction of animal and vegetable waste

19 05 03 off-specification compost

19 06 wastes from anaerobic treatment of waste

19 06 04 digestate from anaerobic treatment of municipal waste

19 06 06 digestate from anaerobic treatment of animal and vegetable waste

19 08 wastes from waste water treatment plants not otherwise specified

19 08 01 screenings

19 08 02 waste from de-sanding

19 08 05 sludges from treatment of urban waste water

19 08 09 grease and oil mixture from oil/water separation containing only edible fat and oils

19 08 12 sludges from biological treatment of industrial waste water other than those mentioned in 19 08 11

19 08 14 sludges from other treatment of industrial waste other than those mentioned in 19 08 13

19 09 wastes from preparation of drinking water or water for industrial use

19 09 01 solid waste from primary filtration and screenings

19 09 02 sludges from water clarification

19 09 03 sludges from decarbonation

19 09 04 spent activated carbon

19 09 05 saturated or spent ion exchange resins

19 09 06 sludges from regeneration of ion exchangers

19 10 wastes from shredding of metal-containing waste

19 10 01 iron and steel waste

19 10 02 non-ferrous waste

19 10 04 fluff – light fraction other than those mentioned in 19 10 03

19 10 06 dust and other fractions other than those mentioned in 19 10 05

19 11 wastes from oil regeneration

19 11 06 sludges from on-site effluent treatment other than those mentioned in 19 11 05

19 12 wastes from the mechanical treatment of waste (e.g. sorting, crushing, compacting, pelletising) not mentioned elsewhere in the list

19 12 01 paper and cardboard

19 12 02 ferrous metal

19 12 03 non-ferrous metal

19 12 04 plastic and rubber

19 12 05 glass

19 12 07 wood other than those mentioned in 19 12 06

19 12 08 textiles

19 12 09 minerals (e.g. sand, stones)

19 12 10 combustible waste (refuse derived fuel)

19 12 12 other wastes (including mixtures of materials) from mechanical treatment of waste other than those mentioned in 19 12 11

19 13 waste from soil and groundwater remediation

19 13 02 solid wastes & sludges from soil remediation other than those mentioned in 19 13 01

19 13 04 sludges from soil remediation other than those mentioned in 19 13 03

19 13 06 sludges from groundwater remediation other than those mentioned in 19 13 05

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

20 01 separately collected fractions (except 15 01)

20 01 01 paper and cardboard
20 01 02 glass
20 01 08 biodegradable kitchen and canteen waste
20 01 10 clothes
20 01 11 textiles
20 01 25 edible oil and fat
20 01 28 paint, inks, adhesives and resins other than those mentioned in 20 01 27
20 01 30 detergents other than those mentioned in 20 01 29
20 01 32 medicines other than those mentioned in 20 01 31
20 01 34 batteries and accumulators other than those mentioned in 20 01 33
20 01 36 discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35
20 01 38 wood other than that mentioned in 20 01 37
20 01 39 plastics
20 01 40 metals
20 01 41 wastes from chimney sweeping

20 02 garden and park wastes (including cemetery waste)

20 02 01 biodegradable waste
20 02 02 soil and stones
20 02 03 other non-biodegradable wastes

20 03 other municipal wastes

20 03 01 mixed municipal waste
20 03 02 waste from markets
20 03 03 street cleaning residues
20 03 04 septic tank sludge
20 03 06 waste from sewage cleaning
20 03 07 bulky waste

Schedule 4 – Emissions and monitoring

Table S4.1 Leachate level limits and monitoring requirements

Monitoring point reference/ Description	Limit	Monitoring frequency	Monitoring method
1. P1L1, P2AL1, P2CL1 as detailed in drawing AM5458/ESID7.	1m above the top of the basal lining.	Monthly	Unless otherwise agreed in writing with the Environment Agency, monitoring methods used shall be in accordance with Environment Agency document 'Guidance on monitoring of landfill leachate, groundwater and surface water' (LFTGN02).
2. All subsequent new leachate monitoring points within cells constructed in Phases 3,4 and 5 as detailed in drawing AM5458/ESID6A and any additional monitoring points agreed in writing with the Environment Agency.			

Table S4.2 Point Source Emissions to Air – emission limits and monitoring requirements

Emission point Ref. & Location	Parameter	Source	Limit	Reference Period	Monitoring Frequency	Monitoring Standard or Method
Flare Unit as detailed on drawing AM5458/ESID08.	Oxides of Nitrogen	Landfill Gas Flares	150 mg/m ³	Hourly mean	Annually	ISO 10849
	CO	Landfill Gas Flares	100 mg/m ³	Hourly mean	Annually	ISO 12039
	Total VOCs	Landfill Gas Flares	10 mg/m ³	Hourly mean	Annually	BS EN 12619 or BS EN 13526
	NM VOC	Landfill Gas Flares	5 mg/m ³	Hourly mean	Annually	BS EN 13649

Table S4.3 Point Source Emissions to Water (Other than Sewer) – emission limits and monitoring requirements

Emission point Ref. & Location	Parameter	Source	Limit	Reference Period	Monitoring Frequency	Monitoring Standard or Method
SW07 as detailed in drawing AM5458/ESID11.	Suspended Solids	Downstream of surface water lagoons	50 mg/l	Spot Sample	Monthly	Unless otherwise agreed in writing with the Environment Agency, monitoring methods used shall be in accordance with Environment Agency document 'Guidance on monitoring of landfill leachate, groundwater and surface water' (LFTGN02).
	Mineral Oil		5 mg/l			
	Ammoniacal Nitrogen (as N)		5 mg/l			
	Chemical Oxygen Demand		30 mg/l			
	pH		Not <6 or >9 pH units			

**Table S4.4 Point Source Emissions to Sewer, Effluent Treatment Plant or by Tankering or other transfer Off-Site-
emission limits and monitoring requirements**

Emission point Ref. & Location	Parameter	Source	Limit	Reference Period	Monitoring Frequency	Monitoring Standard or Method
V-Notch Flow Meter as detailed in drawing AM5458/ESID11	Flow Rate	Leachate balancing lagoons identified on drawing AM5458/ESID7	Limits to be established and agreed under improvement condition reference 10 of Table S1.3.	Reference Period to be established and agreed under improvement condition reference 10 of Table S1.3.	Continuous	Unless otherwise agreed in writing with the Environment Agency, monitoring methods used shall be in accordance with Environment Agency document 'Guidance on monitoring of landfill leachate, groundwater and surface water' (LFTGN02).
LD1 as detailed in drawing AM5458/ESID11	Substances / parameters to be established and agreed under improvement condition reference 10 of Table S1.3.				Monitoring Frequency to be established and agreed under improvement condition reference 10 of Table S1.3.	

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

Monitoring point reference	Parameter	Limit (including unit)	Reference Period	Monitoring frequency	Monitoring standard or method
1. GW5, GW6 and GW7 as detailed on drawing AM5458/ESID11.	Ammoniacal Nitrogen	1.5 mg/l	Spot Sample	Quarterly	Unless otherwise agreed in writing with the Agency, monitoring methods used shall be in accordance with Environment Agency document 'Guidance on monitoring of landfill leachate, groundwater and surface water' (LFTGN02)
	Chloride	37mg/l			
	Zinc	0.32 mg/l			
2. Additional monitoring points constructed under improvement condition reference 8 of table S1.3 and any additional monitoring points agreed in writing with the Environment Agency.	Cadmium	0.1 ug/l			
	Mercury	0.01 ug/l			
	Mecoprop	0.04 ug/l			
	Naphthalene	0.1 ug/l			

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

Monitoring point Ref. /description	Parameter	Limit (including units)	Monitoring frequency	Monitoring standard or method
1. All perimeter gas monitoring boreholes identified on plan AM5458/ ESID08	Methane	1 % v/v above background concentrations unless otherwise agreed in writing with the Agency.	Monthly	To be agreed in writing with the Environment Agency.
2. All subsequent additional monitoring points installed in accordance with improvement condition reference 9 of Table S1.3 and any additional monitoring points agreed in writing within the Agency.	Carbon Dioxide	1.5 % v/v above background concentrations unless otherwise agreed in writing with the Agency.		
	Oxygen	No Limit		
	Atmospheric pressure	No Limit		
	Differential Pressure	No Limit		
	Temperature	No Limit		
	Meteorological data	No Limit		

Table S4.8 Landfill Gas – other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
All in waste monitoring boreholes.	Methane	Monthly unless otherwise agreed in writing with the Environment Agency	To be agreed in writing with the Environment Agency.	On an annual basis the operator shall submit an up to date scale plan detailing the locations of all in waste monitoring boreholes installed at the installation. Each borehole shall be referenced with a unique identifier.
	Carbon Dioxide			
	Oxygen			
	Atmospheric pressure			
	Differential pressure			
	Temperature			
	Meteorological Data			
All gas collection wells	Carbon Monoxide	Fortnightly unless otherwise agreed in writing with the Environment Agency	To be agreed in writing with the Environment Agency.	On an annual basis the operator shall submit an up to date scale plan detailing the locations of all gas collection wells installed at the installation. Each well shall be referenced with a unique identifier.
	Methane			
	Carbon Dioxide			
	Oxygen			
	Atmospheric pressure			
	Differential pressure			
A sample of the source gas taken at a location agreed in writing with the Environment Agency.	Temperature	Annually	To be agreed in writing with the Environment Agency	The selection of sample point and monitoring method shall be justified in writing with reference to Agency guidance entitled 'Guidance for monitoring trace components in landfill gas' (LFTGN04).
	Trace Gas Analysis			
Gas input to flare(s)	Methane	Continuous	To be agreed in writing with the Environment Agency.	Where the oxygen level exceeds 5% or where the addition of the Carbon Dioxide and Methane percentages is less than 80%, an assessment of air ingress in to the system shall be undertaken and the Environment Agency notified in writing.
	Carbon Dioxide			
	Oxygen			
	Gas Flow Rate			

Table S4.9 Leachate– other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
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Table S4.9 Leachate– other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
1. P1L1, P2AL1, P2CL1 as detailed in drawing AM5458/ESID7.	As per Volume 3, Appendix ESID19 – Environmental	As per Volume 3, Appendix ESID19 – Environmental	Unless otherwise agreed in writing with the Agency, monitoring methods used shall be in accordance with Environment Agency document 'Guidance on monitoring of landfill leachate, groundwater and surface water' (LFTGN02)	In the event that the trigger levels detailed in Table HRA9 of the Hydrogeological Risk Assessment are exceeded the Agency shall be notified in writing within seven days of the results of monitoring being received by the operator.
2. All subsequent leachate monitoring points within cells constructed in Phases 3, 4 and 5 as detailed in drawing AM5458/ESID6A and any additional monitoring points agreed in writing with the Environment Agency.	Monitoring Summary.	Monitoring Summary.		
	List I and II substances	Annually		The operator shall supply in writing details of List I and II substances to be analysed one month prior to undertaking annual monitoring. This shall include all parameters used in the Hydrogeological Risk Assessment.

Table S4.10 Surface water – other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
1. SW1, SW3, SW4, SW07, SW8, SW10, SW11, SW12 as detailed in drawing AM5458/ESID11.	As per Volume 3, Appendix ESID19 – Environmental Monitoring Summary	As per Volume 3, Appendix ESID19 – Environmental Monitoring Summary	Unless otherwise agreed in writing with the Agency, monitoring methods used shall be in accordance with Environment Agency document 'Guidance on monitoring of landfill leachate, groundwater and surface water' (LFTGN02)	
2. All subsequent new surface water monitoring points installed in accordance with improvement programme requirement, reference 7 of table S1.3 and any additional monitoring points agreed in writing with the Environment Agency.	Total Suspended Solids	Monthly		

Table S4.11 Groundwater – other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
1. GW5, GW6 and GW7 as detailed on drawing AM5458/ESID11.	As per Volume 3, Appendix ESID19 – Environmental	As per Volume 3, Appendix ESID19 – Environmental	Unless otherwise agreed in writing with the Agency, monitoring methods used shall be in accordance with Environment Agency document 'Guidance on monitoring of landfill leachate, groundwater and surface water' (LFTGN02).	The operator shall supply in writing details of List I and II substances to be analysed one month prior to undertaking annual monitoring.
2. Additional monitoring points constructed under improvement condition reference 8 of table S1.3 and any additional monitoring points agreed in writing with the Environment Agency.	Monitoring Summary.	Environmental Monitoring Summary.		
	List I substances	Annually		
	List II substances	Quarterly unless otherwise agreed in writing with the Agency.		This shall include all parameters used in the Hydrogeological Risk Assessment.

Schedule 5 - Reporting

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

Table S5.1 Reporting of monitoring data

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Leachate levels As required by condition 3.6.1	All leachate monitoring points	Every 3 months	Date of issue of permit
Emissions to air Parameters as required by condition 3.6.1	All monitoring points identified in table S4.2.	Every 12 months	Date of issue of permit
Emissions to water Parameters as required by condition 3.6.1	All monitoring points identified in table S4.3.	Every 3 months	Date of issue of permit
Groundwater Parameters as required by condition 3.6.1	All monitoring points identified in table S4.5 and 4.11.	Every 3 Months	Date of issue of permit
Landfill gas lateral migration Parameters as required by condition 3.6.1	All monitoring points as identified in table S4.6.	Every 3 months	Date of issue of permit
Other Landfill gas monitoring Parameters as required by condition 3.6.1	All monitoring points as identified in table S4.8.	Every 3 months	Date of issue of permit
Other leachate monitoring Parameters as required by condition 3.6.1	All monitoring points as identified in table S4.9.	Every 3 months	Date of issue of permit
List 1 Screen		Every 12 months	
Other surface water monitoring Parameters as required by condition 3.6.1	All monitoring points as identified in table S4.10	Every 3 months	Date of issue of permit

Table S5.2: Annual Production/Treatment

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

Table S5.3 Performance Parameters

Parameter	Frequency of assessment	Annual total	Unit
Potable water use	Annually		Cubic metres
Energy used	Annually		MW of electricity
Non potable water use	Annually		Cubic metres

Table S5.4 Reporting Forms		
Media/parameter	Reporting Format	Date of Form
Controlled water	Reporting format to be agreed in writing with the Agency	
Surface water	Reporting format to be agreed in writing with the Agency	
Groundwater	Reporting format to be agreed in writing with the Agency	
Landfill gas	Reporting format to be agreed in writing with the Agency	
Waste summary	Reporting format to be agreed in writing with the Agency	
Landfill topographical surveys and interpretation	Reporting format to be agreed in writing with the Agency	

Schedule 6 - Notification

This page outlines the information that the Operator must provide.

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

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

Part A

Permit Number	
Name of Operator	
Location of Installation	
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or fugitive emission which has caused, is causing or may cause significant pollution

To be notified within 24 hours of detection	
Date and Time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a limit

To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	Notification period
All to be notified within 24 hours.	

(c) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B to be supplied as soon as practicable

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

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of Cynon Valley Waste Disposal Company Ltd (Trading as AMGEN Cymru)

Schedule 7 - Interpretation

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

“Annually” means once every Year.

“Application” means the application for this Permit, together with any additional information supplied by the Operator as part of the application and any response to a notice served under Schedule 4 to the PPC Regulations

“Authorised Officer” means any person authorised by the Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in Section 108(4) of that Act.

“Background concentration” means such concentration of that substance as is present in:

- For emissions to surface water, the surface water quality up-gradient of the site; or
- For emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge.

“Construction Proposals” means written information, at a level of detail appropriate to the complexity and pollution risk, on the design, specifications of materials selected, stability assessment (where relevant) and the construction quality assurance (CQA) programme in relation to the New Cell or Landfill Infrastructure.

“CQA Validation Report” means the final “as built” construction and engineering details of the New Cell or of the Landfill Infrastructure. It must provide a comprehensive record of the construction and must include, where relevant:

- The results of all testing required by the CQA programme - this must include the records of any failed tests with a written explanation, details of the remedial action taken, referenced to the appropriate secondary testing;
- Plans showing the location of all tests;
- “As-built” plans and sections of the works;
- Copies of the site engineer’s daily records;
- Records of any problems or non-compliances and the solution applied;
- Any other site specific information considered relevant to proving the integrity of the New Cell or Landfill Infrastructure;
- Validation by a qualified person that all of the construction has been carried out in accordance with the Construction Proposals.

“Fugitive emission” means an emission to air, water or land from the Activities which is not controlled by an emission or background concentration limit.

“Groundwater Regulations” means the Groundwater Regulations SI 1998 No. 2746, and words and expressions used in this Permit which are also used in the Regulations shall have the same meanings as in those Regulations.

“Landfill Infrastructure” means any specified element of the:

- permanent capping;
- temporary capping (i.e. engineered temporary caps not cover materials);
- leachate abstraction systems;
- leachate transfer, treatment and storage systems;
- surface water drainage systems;
- leachate monitoring wells;
- groundwater monitoring boreholes;
- landfill gas monitoring boreholes;
- landfill gas management systems;

within the Site.

“Landfill Regulations” means the Landfill (England and Wales) Regulations SI 2002 No. 1559, and words and expressions used in this Permit which are also used in the Regulations shall have the same meanings as in those Regulations.

“Land Protection Guidance” means Agency guidance “H7 - Guidance on the protection of land under the PPC Regime: Application site report and site protection monitoring programme”.

“Liquids” means any liquid other than leachate within the engineered landfill containment system.

“LFTGN 05” means Environment Agency Guidance for monitoring enclosed landfill gas flares, September 2004.

“LFTGN 08” means Environment Agency Guidance for monitoring landfill gas engines, September 2004.

“New Cell” means any new cell, part of a cell or other similar new area of the Site where waste deposit is to commence after issue of this Permit and can comprise:

- groundwater under-drainage system;
- permanent geophysical leak location system;
- leak detection layer;
- sub-grade;
- barriers;
- liners;

- leachate collection system;
- leachate abstraction system;
- separation bund/layer;
- cell or area surface water drainage system;
- side wall subgrade and containment systems;

for the New Cell.

"No impact" means that the change made to the construction process will not alter the agreed design criteria, specification or performance.

"PPC Regulations" means the Pollution, Prevention and Control (England and Wales) Regulations SI 2000 No.1973 and words and expressions used in this Permit which are also used in the Regulations have the same meanings as in those Regulations.

"Quarter" means a calendar year quarter commencing on 1 January.

"Relevant person" and *"relevant conviction"* shall have the meanings given to them in the Environmental Protection Act 1990

"Review of the Hydrogeological Risk Assessment" means a written review of the hydrogeological risk assessment included in the Application, together with any other parts of the Application that addressed the requirements of the Groundwater Regulations. The review shall assess whether the activities of disposal or tipping for the purpose of disposal of waste authorised by the Permit continue to meet the requirements of the Groundwater Regulations

"Site Protection and Monitoring Programme" means a document which meets the requirements for Site Protection and Monitoring Programmes described in the Land Protection Guidance.

"Technically competent management" and *"technical competence"* shall have the meanings given to them in the Environmental Protection Act 1990.

"Year" means calendar year ending 31 December.

Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

Unless otherwise stated, any references in this Permit to concentrations of substances in emissions into air means the standards included in Environment Agency Guidance for Monitoring Enclosed Landfill Gas Flares LFTGN 05 or Guidance for Monitoring Landfill Gas Engine Emissions LFTGN 08.

END OF PERMIT