ENVIRONMENT AGENCY

Variation Notice with introductory note

Pollution Prevention and Control (England & Wales) Regulations

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Bennett Bank Landfill

WRG Waste Services Limited
Thwaite Flat
Barrow-in-Furness
Cumbria
LA14 4QH

Variation Notice Number
JP3335MY

Permit number
BM6093IS

Bennett Bank Landfill
Permit Number BM6093IS
Variation Number JP3335MY

Introductory note

This introductory note does not form a part of the permit

The following notice is issued under regulation 17 of The Pollution Prevention and Control (England and Wales) Regulations 2000 (S.I.2000 No. 1973 (as amended) (the Regulations) to vary the conditions of a permit issued under the Regulations to operate an installation. The notice comprises schedule 1 containing conditions to be deleted, schedule 2 conditions to be amended and schedule 3 conditions to be added.

The effect of this variation is to delete all the existing conditions attached to the Permit and replace these with an entire new set of conditions. The new conditions are in line with the new PPC Permit Template for landfill (version 4) which has been developed in consultation with the waste management industry having regard to the legal requirements of the PPC Regulations, the Landfill Regulations and other relevant legislation.

There are no substantial changes to the installation as a result of this variation. However, the Schedules have been amended to reflect the potential impact of the site after:

- The Operator applied to change the location of the surface water discharge from the installation to the Goldmire Beck;
- further monitoring results being available which has allowed us to assess emissions more accurately;
- agreement of the conditions resulting from discussions with the Operator;
- compliance with improvement conditions; and
- a review of the Hydrogeological Risk Assessment.

Application BM6093IS	Received 07/05/04	Duly Made 01/06/04
Response to request for information	Request dated 12/08/05	Response dated 16/09/05
Response to request for information	Request dated 18/10/05	Responses dated 01/11/2005 and 04/11/05
Permit determined	07/11/05	
Application Variation JP3335MY	Received 04/10/2006	Duly Made 08/11/2006
Variation notice JP3335MY issued	01/01/2008	

Superseded or Partially Superseded Licences/Authorisations/Consents relating to this installation

Holder	Reference Number	Date of Issue	Fully or Partially Superseded
Waste Management Licence held by Caird Environmental Ltd	*EAWML57025*	*31/08/1977*	Fully Superseded
Waste Management Licence held by Caird Environmental Ltd	*EAWML57500*	*01/05/1998*	Fully Superseded
Surface Water Discharge consent held by Caird Environmental Ltd	*017490341*	*26/11/1999*	Fully Superseded

Other existing Licences/Authorisations/Registrations relating to this site

Holder	Reference Number	Date of issue
Waste Management Licence held by Shanks Waste Services Ltd	*EAWML57538*	*04/04/2003*
Waste Management Licence held by WRG Waste Services Limited	*EAWML57568*	*27/03/2007*

End of Introductory Note

Variation Notice

Permit number
BM6093IS
Variation number
JP3335MY

The Environment Agency (the Agency) in exercise of its powers under Regulation 17 of the Pollution Prevention and Control (England and Wales) Regulations 2000 (SI 2000 No 1973) hereby varies the permit held by you
WRG Waste Services Limited ("the Operator"),

whose registered office (or principal office) is
Ground Floor West
900 Pavilion Drive
Northampton Business Park
Northampton
NN4 7RG

Company registration number **00988844**

to operate an installation at
Bennett Bank Landfill
Thwaite Flat
Barrow-in-Furness
Cumbria
LA14 4QH

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

The notice shall take effect from 1st January 2008.

Signed	Date
	1st January 2008

Martin Jenkins *NPS Permitting Team Leader*

Authorised to sign on behalf of the Agency

SCHEDULE 1 – CONDITIONS TO BE DELETED

1. All conditions and schedules of permit BM6093IS are deleted.

SCHEDULE 2 – CONDITIONS TO BE AMENDED

2. None.

SCHEDULE 3 – CONDITIONS TO BE ADDED

3. The following conditions and schedules are added to the permit.

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 shall be as set out in the Deed of Performance dated 5 October 2004 between the Waste Recycling Group Limited and the Agency. The Operator shall accordingly ensure that the permit is and remains throughout its subsistence listed under Schedule 2 of that Deed as being a permit to which the Deed relates.

1.3.2 The operator shall ensure that the charges it makes for the disposal of waste in the landfill cover the cost of operating the landfill, as far as possible the cost of the financial provision required by condition 1.3.1 and the estimated costs for the closure and aftercare of the landfill.

1.4 Energy efficiency

1.4.1 The operator shall:

(a) Review and record at least every 4 years whether there are suitable opportunities to improve the energy efficiency of the activities; and

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

1.5 Site security

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

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 red 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.

2.3.2 Leachate shall only be re-circulated within the Phase it is collected from, excluding cell 5/5 which shall have no recirculation of leachate from any other cell or phase.

2.4 Off-site conditions

There are no conditions in this permit to which regulation 12(12) of the PPC Regulations apply.

2.5 Improvement programme

2.5.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Agency.

2.5.2 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

There are no pre-operational conditions in the permit.

2.7 Engineering

2.7.1 No construction of any new cell shall commence until the operator has submitted construction proposals and the Agency has confirmed that it is satisfied with the construction proposals.

2.7.2 The construction of a new cell shall take place only in accordance with the approved construction proposals unless:

(a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or

(b) a change has otherwise been agreed in writing by the Agency.

2.7.3 No disposal of waste shall take place in a new cell until the operator has submitted a CQA Validation Report and the Agency has confirmed that it is satisfied with the CQA Validation Report.

2.7.4 No construction of landfill Infrastructure shall commence until the operator has submitted relevant construction proposals or a written request to use previous construction proposals and the Agency has confirmed that it is satisfied with the construction proposals.

2.7.5 The construction of the landfill Infrastructure shall take place only in accordance with the approved construction proposals unless:

(a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or

(b) a change has otherwise been agreed in writing by the Agency.

2.7.6 The operator shall submit a CQA Validation Report as soon as practicable following the construction of the relevant landfill Infrastructure.

2.7.7 Where pollution controls are immediately necessary to prevent an incident or accident, then conditions 2.7.4 and 2.7.5 do not apply and the relevant landfill Infrastructure may be constructed, provided that the construction proposals are submitted to the Agency as soon as practicable.

2.7.8 For the purposes of conditions 2.7.1, 2.7.3 and 2.7.4, the Agency shall be deemed to be satisfied where it has not, within the period of 4 weeks from the date of receipt of the relevant construction proposals or CQA Validation Report, either:

(a) confirmed whether or not it is satisfied; or

(b) informed the operator that it requires further information.

2.8 Waste acceptance

2.8.1 Wastes shall only be accepted for disposal if:

(a) they are listed in schedule 3, and

(b) they are non- hazardous waste, and

(c) they are not whole used tyres (other than bicycle tyres and tyres with an outside diameter of more than 1400mm), and

(d) they are not shredded used tyres, and

(e) they are not liquid waste (including waste waters but excluding sludge), and

(f) they are not chemical substances from research and development or teaching activities, for example laboratory residues, which are unidentified and/or which are new and whose effects on man and/or the environment are unknown, and

(g) all the relevant waste acceptance procedures set out in schedule 1 of the Landfill Regulations have been completed, and

(h) they fulfil the relevant waste acceptance criteria, and

(i) they have not been diluted or mixed solely to meet the relevant waste acceptance criteria, and

(j) they are wastes which have been treated, except for: inert wastes for which treatment is not technically feasible; or it is waste other than inert waste and treatment would not reduce its quantity or the hazards which it poses to human health or the environment, and

(k) any code beginning with 07 05 and 16 03 shall exclude waste medicinal products and pharmaceutically active waste materials arising from their manufacture.

2.8.2 The operator shall visually inspect:

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

(b) waste at the point of deposit.

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

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

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

2.8.5 The total quantity of waste that shall be deposited in the landfill shall be limited by the pre-settlement levels shown on drawing 462P1067 dated 19th July 2006.

2.8.6 The quantity of waste that is deposited in the landfill in any year shall not exceed the limits in schedule 1 table S1.4.

2.8.7 The operator shall maintain and implement a system which ensures that a record is made of the quantity, characteristics, date of delivery and, where practicable, origin of any waste that is received for disposal or recovery and of the identity of the producer, or in the case of municipal waste and multiple collection vehicles, of the collector of such waste. Any information regarded by the operator as commercially confidential shall be clearly identified in the record.

2.9 Leachate levels

2.9.1 The limits for the level of leachate listed in schedule 4 table S4.1 shall not be exceeded.

2.10 Closure, aftercare and decommissioning

2.10.1 The operator shall maintain and operate the activities so as to prevent or where that is not practicable, to minimise, any pollution risk on closure and decommissioning.

2.10.2 The operator shall maintain a site closure plan which demonstrates how the activities can be decommissioned to avoid any pollution risk and return the site of operation to a satisfactory state.

2.10.3 The operator shall carry out and record a review of the site closure plan at least every 4 years.

2.10.4 The site closure plan (or relevant part thereof) shall be implemented on final cessation or decommissioning of the activities or part thereof.

2.11 Site protection and monitoring programme

2.11.1 The operator shall implement and maintain the Site Protection and Monitoring Programme in relation to all areas which will not comprise permanent deposits of waste and shall carry out and record a review of it at least every 4 years commencing from the date the Site Protection and Monitoring Programme was received.

3. Emissions and monitoring

3.1 Emissions to water, air or land

3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 4 tables S4.2 and S4.3.

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 schedule 4 table S4.5 shall not be exceeded.

3.2.4 The operator shall submit to the Agency a review of the Hydrogeological Risk Assessment:

(a) between 9 and 6 months prior to the fourth anniversary of the granting of the permit, and

(b) between 9 and 6 months prior to every subsequent 4 years after the fourth anniversary of the granting of the permit.

3.3 Fugitive emissions of substances

3.3.1 Fugitive emissions of substances (excluding odour, noise and vibration) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.3.2 Litter or mud arising from the activities shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures have been used to prevent or where that is not practicable to minimise, the litter and mud.

3.3.3 Litter or mud arising from the activities shall be cleared from affected areas outside the site as soon as practicable.

3.3.4 All liquids, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3.5 The limits for landfill gas arising from the installation set out in schedule 4, table S4.5 shall not be exceeded.

3.4 Odour

3.4.1 Emissions from the activities shall be free from odour at levels likely to cause annoyance outside the site, as perceived by an authorised officer of the Agency, unless the operator has used appropriate measures, including those specified in schedule1 table S1.5, to prevent or where that is not practicable to minimise the odour.

3.5 Noise and vibration

3.5.1 Emissions from the activities shall be free from [noise and] vibration at levels likely to cause annoyance outside the site, as perceived by an authorised officer of the Agency, unless the operator has used appropriate measures to prevent or where that is not practicable to minimise the noise and vibration.

3.6 Monitoring

3.6.1 The operator shall, unless otherwise agreed in writing by the Agency, undertake the monitoring and any other actions specified in the following tables in schedule 4 to this permit:

(a) Leachate specified in tables S4.1 and S4.8;

(b) Point source emissions specified in tables S4.2 and S4.3;

(c) Groundwater specified in tables S4.4 and S4.10;

(d) Landfill gas specified in tables S4.5, S4.6 and S4.7;

(e) Surface water specified in table S4.9; and

(f) Particulate matter specified in table S4.11.

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.

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 surface water and 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) the specification and as built drawings of the basal, sidewall and capping engineering systems.

4.1.2. Any records required to be made by this permit shall be supplied to the Agency within 14 days where the records have been requested in writing by the Agency.

4.1.3 All records required to be held by this permit shall be held on site and shall be available for inspection by the Agency at any reasonable time.

4.2 Reporting

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

(a) a review of the results of the monitoring and assessment carried out in accordance with this permit against the relevant assumptions, parameters and results in the risk assessments submitted in relation to this installation and any agreed amendments thereto;

(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 annual production/treatment set out in schedule 5 table S5.2;

(e) details of any contamination or decontamination of the site which has occurred;

(f) the topographical surveys required by condition 3.6.3 other than those submitted as part of a CQA validation report;

(g) 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;

(h) 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;

(i) a calculation of the remaining capacity (reported in cubic metres) derived from the pre-settlement contours and the most recent topographical survey;

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

(a) in respect of the parameters and emission points specified in schedule 5 table S5.1;

(b) for the reporting periods specified in schedule 5 table S5.1 and using the forms specified in schedule 5 table S5.4; and

(c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.2.3 A summary report of the waste types and quantities accepted and removed from the site shall be made for each quarter. It shall be submitted to the Agency within one month of the end of the quarter and shall be in the format required by the Agency.

4.2.4 The operator shall, unless notice under this condition has been served within the preceding 4 years, submit to the Agency, within 6 months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.2.5 All reports and notifications required by the permit shall be sent to the Agency using the contact details supplied in writing by the Agency.

4.2.6 The results of reviews and any changes made to the Site Protection and Monitoring Programme shall be reported to the Agency, within 1 month of the review or change.

4.3 Notifications

4.3.1 The Agency shall be notified without delay following the detection of:

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

(b) the breach of a limit specified in the permit;

(c) any significant adverse environmental effects.

4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 6 to this permit within the time period specified in that schedule.

4.3.3. Prior written notification shall be given to the Agency of the following events and in the specified timescales:

(a) as soon as practicable prior to the permanent cessation of any of the permitted activities;

(b) as soon as practicable prior to the cessation of the landfill disposal activities, for a period likely to exceed 1 month; and

(c) at least 7 days prior to the resumption of the landfill disposal activities after a cessation notified under (b) above.

4.3.4 The Agency shall be given at least 14 days notice before implementation of any part of the site closure plan in respect of any activities other than the disposal of waste in the landfill.

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

4.3.6 The Agency shall be notified within 7 days of any changes in technically competent management and the name of any incoming person together with evidence that such person has the required technical competence.

4.3.7 The Agency shall be provided, within 14 days of the operator or any relevant person being convicted of a relevant offence, (unless such information has already been notified to the Agency), with details of the nature of the offence, the place and date of conviction, and the sentence imposed.

4.3.8 The Agency shall be notified within 14 days of the operator and/or any relevant person lodging an appeal against a conviction for any relevant offence and of the outcome when the appeal is decided.

4.3.9 The Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

(a) any change in the operator's trading name, registered name or registered office address;

(b) any change to particulars of the operator's ultimate holding company (including details of an ultimate holding company where an operator has become a subsidiary); and

(c) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 7 shall have the meaning given in that schedule.

Schedule 1 - Operations

Table S1.1 Activities		
Activity listed in Schedule 1 of the PPC Regulations	**Description of specified activity**	**Limits of specified activity**
Section 5.2 Part A(1) (a) , The disposal of waste in a landfill.	Landfill for non-hazardous waste (landfill classification under the Landfill Regulations 2002)	Receipt, handling, storage and disposal of wastes, consisting of the types and quantities specified in conditions 2.8, as an integral part of landfilling.
Section 1.1, Part A(1)(b)(iii), Burning of waste as a fuel	Utilisation of landfill gas for energy recovery in an appliance with a rated thermal input of ≥ 3 MW, but <50 MW. (Two engines with exhaust emission height of a minimum of 7m from ground level).	Utilisation of the landfill gas will only take place in the landfill gas compound. Landfill gas arising from the landfill. Permission is for the operation of two landfill gas engines.
Directly Associated Activity		
Water discharges to controlled waters.	Storage, handling and discharge of site drainage from installation, surrounding land and restored areas of landfill.	From surface water management system to point of entry to controlled waters.
Leachate management	Collection, recirculation and storage of landfill leachate pre-disposal.	Permission is for the collection, recirculation and handling of landfill leachate from the Permitted landfill.
Fuel storage.	Storage of fuel for operation of plant and equipment. Storage and handling of utility materials (oil, coolant, waste oil).	From fuel storage tank/bowser to point of discharge/ disposal off site. Receipt of utility materials, storage, transfer to engines and storage of waste materials.
Landfill gas flaring	Flaring of landfill gas for disposal in an appliance. . The Flare stack height shall be a minimum of 9.5 m (landfill gas compound) from ground level.	Flaring of landfill gas, in an enclosed flare. Permission is for the operation of one landfill gas flare.

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application	The response to questions 2.1, 2.2, 2.3, 2.4, 2.5, 2.7, 2.8, 2.9, and 2.11 in part B of the Application Form excluding section 2.2.31.	07/05/04
Response to request for further information sent 12/08/05.	The response to questions 1 to 24 inclusive, drawings 1, HRA 1, HRA 2 and revised HRA report excluding the responses: • Paragraph 1.3.2.2 in relation to the setting of the EAL at laboratory detection limits; • Tables HRA 21, 22 and 23; • Paragraph 3.1.2; and • Paragraph 3.1.3 in relation to leachate control and trigger values.	19/09/05
Response to request for further information dated 18/10/2005.	The responses dated 01/11/2005 and 04/11/2005.	01/11/2005 and 04/11/2005
Variation application JP3335MY	The response to questions within Parts A, C and F of the Variation Application Form including Variation application document 05529660.506 version A.0 dated October 2006 including drawing No. 1 dated 2nd October 2006.	04/10/2006
	Drawing 4665/ESID10 revision 2, Drawing 4665/ESID/12 revision 2 dated 21/08/2007, Drawing 4665/ESID/13B revision 1 dated 25/09/2007. Drawing 4665/ESID/22 revision 2 dated 21/08/2007.	14/12/2007 14/09/2007 28/09/2007 14/09/2007
Information submitted in accordance with condition 1.4.1.1	Report 05529660.504/A.1 surface water management design and monitoring plan as amended by revision April 2007 and letter dated 11/06/2007 accepted subject to additional reservation in letter dated 22/06/2007 reference. AK/EMSC28/BM6093IS/DO.	26/05/2006

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Information submitted in accordance with condition 1.4.1.2A	Report reference 05529660.505 Gas Management Plan Version A.1 as amended by revision dated January 2007 and drawing number 4665/ESID/13A revision 1 dated 05/09/2007.	22/03/2006
Information submitted in accordance with condition 1.4.1.3A	Report ref 05529660.503 Groundwater Management as amended by revision dated January 2007 and drawing number 4665/ESID/22 revision 2 dated 21/08/2007.	06/02/2006
Information submitted in accordance with condition 1.4.1.4A	Bennett Bank Leachate Management Plan dated February 2006 as amended by Section 5 progress review dated May 2007.	28/02/2006
Information submitted in accordance with condition 1.4.1.5	Report ref 05529660.502/A.0 Particulate Management Plan dated 28 February 2006 accepted subject to monitoring regime set out in letter dated 11/10/2006, reference AK/EMSC113/BM6093IS/BR.	07/03/2006

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IP1A	The Operator shall install replacement for landfill gas monitoring borehole GBH14 adjacent to borehole RH5R. Upon completion of installation the Operator shall: • commence monitoring; • incorporate the replacement monitoring boreholes into the Landfill Gas Management Plan; and • provide details and final location of the boreholes to the Environment Agency.	01/07/2008
IP1B	The Operator shall carry out monthly landfill gas monitoring of BH6R, BH12R, BH16, BH101 and replacement boreholes (installed in accordance with condition IP1A) and submit to the Agency for approval a report, based upon 6 months monitoring results, setting control and trigger levels for the boreholes in accordance with the Agency document "The management of landfill gas LFTGN03". Following submission of the proposal required by this condition the Operator shall undertake those measures agreed in writing by the Agency to the timescale indicated in the approval.	01/03/2009
IP2	The Operator shall carry out monthly groundwater monitoring and submit to the Agency for approval a report, based upon 12 months monitoring results, setting control and trigger levels for the boreholes RH5R, RH6R, RH8, RH12R, RH13, RH101, RH102, RH103 and RH104 in accordance with the Agency document "Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water". Following submission of the report required by this condition the Operator shall undertake those measures agreed in writing by the Agency to the timescale indicated in the approval.	30/04/2008
IP3	Water Level monitoring shall be carried out in ponds 'B' and 'C' as shown on drawing 4665/ESID/24B on a quarterly basis. A report shall be submitted analysing the relationship between water levels in the ponds and the groundwater levels and gradients monitored around the site. The report shall assess the potential for groundwater pathways to exist between the installation and the ponds. Where it is demonstrated that a potential pathway does exist the Hydrogeological Risk Assessment shall be reviewed in agreement with the Agency and the groundwater monitoring plan shall be revised to include the ponds.	01/03/2008
IP4	The Operator shall provide the Agency with revised ESID drawings showing on-site leachate extraction and monitoring points, using unique nomenclature enabling identification of their specific purpose (e.g. W for extraction well, LMP for leachate monitoring point etc).	01/04/2008
IP5	The Operator shall provide a report for approval by the Agency on the installation of appropriate measures for monitoring of the flow rate of landfill gas.	01/05/2008

IP6	The Operator shall provide the Agency with a landfill gas risk assessment addendum report incorporating detailed air dispersion modelling using new generation air dispersion models. The report shall build upon the landfill gas risk assessment reports dated April 2004 and February 2005 and shall evaluate the potential effect of the surface emission of hydrogen sulphide evaluated over the short term. The report shall take into account background concentrations of H_2S, and evaluate the predicted emissions against the Short Term EAL of 150 µg/m3. All modelling assumptions input parameters background gas concentrations and supporting information shall be clearly presented in the report. The report should be capable of being read and understood independently of the previous reports and include pressure readings and gas production levels. The assessment of pathways for fugitive emissions should include well heads and other risk areas such as joints in pipework.	01/04/2008

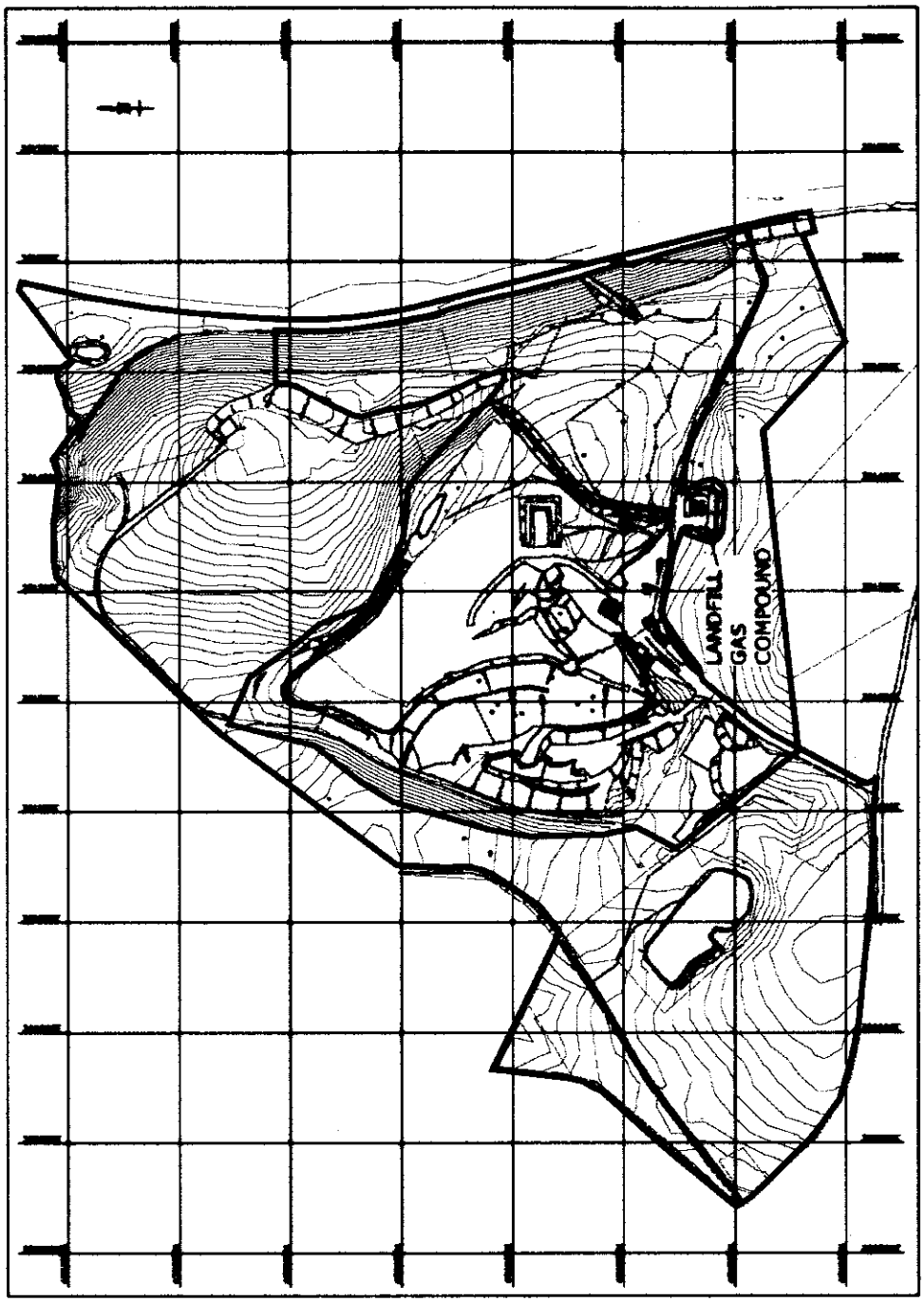
Table S1.4 Annual waste input limits

Category	Limit Tonnes/ Year
Non-hazardous waste	300,000
Inert waste	300,000
Total	300,000

Table S1.5 Appropriate measures for odour

Measure	Dates
There shall be no spray irrigation of leachate	-

Schedule 2 - Site plan



Schedule 3 - List of permitted wastes

Wastes permitted for disposal

EWC	Description
01	**WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS**
01 01	**wastes from mineral excavation**
01 01 01	wastes from mineral metalliferous excavation
01 01 02	wastes from mineral non-metalliferous excavation
01 03	**wastes from physical and chemical processing of metalliferous minerals**
01 03 06	tailings other than those mentioned in 01 03 04 and 01 03 05
01 03 08	dusty and powdery wastes other than those mentioned in 01 03 07
01 03 09	red mud from alumina production other than the wastes mentioned in 01 03 07
01 04	**wastes from physical and chemical processing of non-metalliferous minerals**
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	waste sand and clays
01 04 10	dusty and powdery wastes other than those mentioned in 01 04 07
01 04 11	wastes from potash and rock salt processing other than those mentioned in 01 04 07
01 04 12	tailings and other wastes from washing and cleaning of minerals other than those mentioned in 01 04 07 and 01 04 11
01 04 13	wastes from stone cutting and sawing other than those mentioned in 01 04 07
01 05	**drilling muds and other drilling wastes**
01 05 04	freshwater drilling muds and wastes
01 05 07	barite-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06
01 05 08	chloride-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06
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	wastes from forestry
02 01 09	agrochemical waste other than those mentioned in 02 01 08
02 02	**wastes from the preparation and processing of meat, fish and other foods of animal origin**
02 02 01	sludges from washing and cleaning
02 02 02	animal-tissue waste
02 02 03	materials unsuitable for consumption or processing
02 02 04	sludges from on-site effluent treatment
02 02 99	Meat and bone meal wastes from rendering
02 03	**wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation**
02 03 01	sludges from washing, cleaning, peeling, centrifuging and separation
02 03 02	wastes from preserving agents
02 03 03	wastes from solvent extraction

EWC	Description
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 the baking and confectionery industry**
02 06 01	materials unsuitable for consumption or processing
02 06 02	wastes 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	wastes from washing, cleaning and mechanical reduction of raw materials
02 07 02	wastes from spirits distillation
02 07 03	wastes 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	sawdust, 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 waste paper and cardboard
03 03 08	wastes from sorting of paper and cardboard destined for recycling
03 03 09	lime mud waste
03 03 10	fibre rejects, fibre-, filler- and coating-sludges from mechanical separation
03 03 11	sludges from on-site effluent treatment other than those mentioned in 03 03 10
04	**WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES**
04 01	**wastes from the leather and fur industry**
04 01 01	fleshings and lime split wastes
04 01 02	liming waste
04 01 06	sludges, in particular from on-site effluent treatment containing chromium
04 01 07	sludges, in particular from on-site effluent treatment free of chromium
04 01 08	waste tanned leather (blue sheetings, shavings, cuttings, buffing dust) containing chromium
04 01 09	wastes from dressing and finishing
04 02	**wastes from the textile industry**
04 02 09	wastes from composite materials (impregnated textile, elastomer, plastomer)

EWC	Description
04 02 10	organic matter from natural products (for example grease, wax)
04 02 15	wastes from finishing other than those mentioned in 04 02 14
04 02 17	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	wastes from unprocessed textile fibres
04 02 22	wastes from processed textile fibres
05	**WASTES FROM PETROLEUM REFINING, NATURAL GAS PURIFICATION AND PYROLYTIC TREATMENT OF COAL**
05 01	**wastes 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	wastes from cooling columns
05 01 16	sulphur-containing wastes 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 and transportation**
05 07 02	wastes containing sulphur
06	**WASTES FROM INORGANIC CHEMICAL PROCESSES**
06 03	**wastes from the MFSU of salts and their solutions and metallic oxides**
06 03 14	solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13
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 MFSU 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 phosphorous chemicals and phosphorous chemical processes**
06 09 02	phosphorous slag
06 09 04	calcium-based reaction wastes other than those mentioned in 06 09 03
06 11	**wastes from the manufacture of inorganic pigments and opacificiers**
06 11 01	calcium-based reaction wastes from titanium dioxide production
06 13	**wastes from inorganic chemical processes not otherwise specified**
06 13 03	carbon black
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 and man-made fibres**
07 02 12	sludges from on-site effluent treatment other than those mentioned in 07 02 11
07 02 13	waste plastic
07 02 15	wastes from additives other than those mentioned in 07 02 14
07 02 17	wastes containing silicones other than those mentioned in 07 02 16
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

EWC	Description
07 04	**wastes from the MFSU of organic plant protection products (except 02 01 08 and 02 01 09), wood preserving agents (except 03 02) and other biocides**
07 04 12	sludges from on-site effluent treatment other than those mentioned in 07 04 11
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 and varnish other than those mentioned in 08 01 11
08 01 14	sludges from paint or varnish 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	wastes from paint or varnish removal other than those mentioned in 08 01 17
08 02	**wastes from MFSU of other coatings (including ceramic materials)**
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 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 toner 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 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 dust mentioned in 10 01 04)
10 01 02	coal fly ash
10 01 03	fly ash from peat and untreated wood
10 01 05	calcium-based reaction wastes from flue-gas desulphurisation in solid form
10 01 07	calcium-based reaction wastes from flue-gas desulphurisation in sludge form
10 01 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

EWC	Description
10 01 19	wastes from gas cleaning other than those mentioned in 10 01 05, 10 01 07 and 10 01 18
10 01 21	sludges from on-site effluent treatment other than those mentioned in 10 01 20
10 01 23	aqueous sludges from boiler cleansing other than those mentioned in 10 01 22
10 01 24	sands from fluidised beds
10 01 25	wastes from fuel storage and preparation of coal-fired power plants
10 01 26	wastes from cooling-water treatment
10 02	**wastes from the iron and steel industry**
10 02 01	wastes from the processing of slag
10 02 02	unprocessed slag
10 02 08	solid wastes from gas treatment other than those mentioned in 10 02 07
10 02 10	mill scales
10 02 12	wastes 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 wastes from anode manufacture other than those mentioned in 10 03 17
10 03 20	flue-gas dust other than those mentioned in 10 03 19
10 03 22	other particulates and dust (including ball-mill dust) other than those mentioned in 10 03 21
10 03 24	solid wastes from gas treatment other than those mentioned in 10 03 23
10 03 26	sludges and filter cakes from gas treatment other than those mentioned in 10 03 25
10 03 28	wastes from cooling-water treatment other than those mentioned in 10 03 27
10 03 30	wastes from treatment of salt slags and black drosses other than those mentioned in 10 03 29
10 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	wastes 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	wastes 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 wastes from gas treatment
10 07 04	other particulates and dust

EWC	Description
10 07 05	sludges and filter cakes from gas treatment
10 07 08	wastes 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 wastes from anode manufacture other than those mentioned in 10 08 12
10 08 14	anode scrap
10 08 16	flue-gas dust other than those mentioned in 10 08 15
10 08 18	sludges and filter cakes from flue-gas treatment other than those mentioned in 10 08 17
10 08 20	wastes from cooling-water treatment other than those mentioned in 10 08 19
10 09	**wastes from casting of ferrous pieces**
10 09 03	furnace slag
10 09 06	casting cores and moulds which have not undergone pouring other than those mentioned in 10 09 05
10 09 08	casting cores and moulds which have undergone pouring other than those mentioned in 10 09 07
10 09 10	flue-gas dust other than those mentioned in 10 09 09
10 09 12	other particulates other than those mentioned in 10 09 11
10 09 14	waste binders other than those mentioned in 10 09 13
10 09 16	waste crack-indicating agent other than those mentioned in 10 09 15
10 10	**wastes from casting of non-ferrous pieces**
10 10 03	furnace slag
10 10 06	casting cores and moulds which have not undergone pouring, other than those mentioned in 10 10 05
10 10 08	casting cores and moulds which have undergone pouring, other than those mentioned in 10 10 07
10 10 10	flue-gas dust other than those mentioned in 10 10 09
10 10 12	other particulates other than those mentioned in 10 10 11
10 10 14	waste binders other than those mentioned in 10 10 13
10 10 16	waste crack-indicating agent other than those mentioned in 10 10 15
10 11	**wastes from manufacture of glass and glass products**
10 11 03	waste glass-based fibrous materials
10 11 05	particulates and dust
10 11 10	waste preparation mixture before thermal processing, other than those mentioned in 10 11 09
10 11 12	waste glass other than those mentioned in 10 11 11
10 11 14	glass-polishing and -grinding sludge other than those mentioned in 10 11 13
10 11 16	solid wastes from flue-gas treatment other than those mentioned in 10 11 15
10 11 18	sludges and filter cakes from flue-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)

EWC	Description
10 12 12	wastes 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	wastes from calcination and hydration of lime
10 13 06	particulates and dust (except 10 13 12 and 10 13 13)
10 13 07	sludges and filter cakes from gas treatment
10 13 10	wastes from asbestos-cement manufacture other than those mentioned in 10 13 09
10 13 11	wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10
10 13 13	solid wastes 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 (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphatising, alkaline degreasing, anodising)**
11 01 10	sludges and filter cakes other than those mentioned in 11 01 09
11 01 14	degreasing wastes other than those mentioned in 11 01 13
11 02	**wastes from non-ferrous hydrometallurgical processes**
11 02 03	wastes from the production of anodes for aqueous electrolytical processes
11 02 06	wastes from copper hydrometallurgical processes other than those mentioned in 11 02 05
11 05	**wastes from hot galvanising processes**
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 physical and mechanical surface treatment of metals and plastics**
12 01 02	ferrous metal dust and particles
12 01 04	non-ferrous metal dust and particles
12 01 05	plastics shavings and turnings
12 01 13	welding wastes
12 01 15	machining sludges other than those mentioned in 12 01 14
12 01 17	waste blasting material other than those mentioned in 12 01 16
12 01 21	spent grinding bodies and grinding materials other than those mentioned in 12 01 20
15	**WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED**
15 01	**packaging (including separately collected municipal packaging waste)**
15 01 02	plastic packaging
15 01 05	composite packaging
15 01 06	mixed packaging
15 01 09	textile packaging
15 02	**absorbents, filter materials, wiping cloths and protective clothing**
15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02

EWC	Description
16	**WASTES NOT OTHERWISE SPECIFIED IN THE LIST**
16 01	**end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08)**
16 01 03	end-of-life tyres
16 01 12	brake pads other than those mentioned in 16 01 11
16 01 19	plastic
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 and unused products**
16 03 04	inorganic wastes other than those mentioned in 16 03 03
16 03 06	organic wastes other than those mentioned in 16 03 05
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 others 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 others 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 03	plastic
17 03	**bituminous mixtures, coal 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 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-containing construction materials**
17 06 04	insulation materials other than those mentioned in 17 06 01 and 17 06 03
17 09	**other construction and demolition wastes**
17 09 04	mixed construction and demolition wastes 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 04	wastes whose collection and disposal is not subject to special requirements in order to prevent infection(for example

EWC	Description
	dressings, plaster casts, linen, disposable clothing, diapers)
18 02	**wastes from research, diagnosis, treatment or prevention of disease involving animals**
18 02 03	wastes whose collection and disposal is not subject to special requirements in order to prevent infection
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 12	bottom ash and slag other than those mentioned in 19 01 11
19 01 14	fly ash other than those mentioned in 19 01 13
19 01 16	boiler dust other than those mentioned in 19 01 15
19 01 18	pyrolysis wastes other than those mentioned in 19 01 17
19 01 19	sands from fluidised beds
19 02	**wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)**
19 02 03	premixed wastes composed only of non-hazardous wastes
19 02 06	sludges from physico/chemical treatment other than those mentioned in 19 02 05
19 02 10	combustible wastes other than those mentioned in 19 02 08 and 19 02 09
19 03	**stabilised/solidified wastes**
19 03 05	stabilised wastes other than those mentioned in 19 03 04
19 03 07	solidified wastes other than those mentioned in 19 03 06
19 04	**vitrified waste and wastes from vitrification**
19 04 01	vitrified waste
19 05	**wastes from aerobic treatment of solid wastes**
19 05 01	non-composted fraction of municipal and similar wastes
19 05 02	non-composted fraction of animal and vegetable waste
19 05 03	off-specification compost
19 08	**wastes from waste water treatment plants not otherwise specified**
19 08 01	screenings
19 08 02	waste from desanding
19 08 05	sludges from treatment of urban waste water
19 08 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 water other than those mentioned in 19 08 13
19 09	**wastes from the preparation of water intended for human consumption or water for industrial use**
19 09 01	solid waste from primary filtration and screenings
19 09 02	sludges from water clarification
19 09 03	sludges from decarbonation
19 09 04	spent activated carbon
19 09 05	saturated or spent ion exchange resins
19 09 06	solutions and sludges from regeneration of ion exchangers
19 10	**wastes from shredding of metal-containing wastes**
19 10 04	fluff-light fraction and dust other than those mentioned in 19 10 03
19 10 06	other fractions other than those mentioned in 19 10 05
19 11	**wastes from oil regeneration**
19 11 06	sludges from on-site effluent treatment other than those mentioned in 19 11 05

EWC	Description
19 12	**wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**
19 12 04	plastic and rubber
19 12 05	glass
19 12 08	textiles
19 12 09	minerals (for example sand, stones)
19 12 10	combustible waste (refuse derived fuel)
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
19 13	**wastes from soil and groundwater remediation**
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01
19 13 04	sludges from soil remediation other than those mentioned in 19 13 03
19 13 06	sludges from groundwater remediation other than those mentioned in 19 13 05
20	**MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS**
20 01	**separately collected fractions (except 15 01)**
20 01 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 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 41	wastes from chimney sweeping
20 01 99	feminine hygiene wastes, some group E clinical waste
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

Wastes permitted for restoration

EWC	Description
01	WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS
01 04	wastes from physical and chemical processing of non-metalliferous minerals
01 04 09	waste sand and clays
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)
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
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 02	garden and park wastes (including cemetery waste)
20 02 02	soil and stones

Schedule 4 – Emissions and monitoring

Table S4.1 Leachate level limits and monitoring requirements

Monitoring point reference/ Description (3)	Limit	Monitoring frequency	Monitoring method
Phase 2 Leachate Monitoring Points – 2/101, 2/102, 2/104, 2/105, 2/109, 2/110, 2/111 and 2/119	None set	Monthly	As stated in the application or as otherwise agreed with the Agency
Phase 3 Leachate Extraction Wells – Cell 1 - 3/1W (1) and Cell 2 - 3/2W	1.0m above base of well casing	Weekly	
Phase 3 Leachate Monitoring Point – 3/2E	1.0m above base of well casing	Monthly	
Phase 4 Leachate Extraction Well - 4C .	1.0m above base of liner (2)	Weekly	
Phase 5 Leachate Extraction Wells– Cell 1 - 5/1; Cell 2 - 5/2; Cell 3 - 5/3; Cell 4 - 5/4; Cell 5 - 5/5	1.0m above base of liner (2)	Weekly	
Phase 5 Leachate Monitoring Points – Cell 3 - 5/3/A and 5/3/B; Cell 4 - 5/4/A and 5/4/B; and Cell 5 - 5/5/A (2) and 5/5/B	1.0m above base of liner	Monthly	

(1) These limits shall not apply until 1st April 2008 unless agreed otherwise in writing with the Agency.
(2) Measured from the liner level at the lip of the sump.
(3) as detailed on drawing 4665/ESID10 revision 2.

Table S4.2 Point source emissions to air – emission limits and monitoring requirements

Emission point Ref. & Location	Parameter	Source	Limit (including unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
Landfill Gas Engine No. G1 – located nearest the flare as shown on drawing number 4665/ESID/12 revision 2 dated 21/08/2007	Oxides of Nitrogen, expressed as NO_2	Exhaust of Gas Engine No G1	650 mg/m^3	Hourly mean	Annual	ISO 10849:1996 Extractive sampling and chemiluminescence
	Carbon Monoxide		1500 mg/m^3		Annual	ISO 12039:2001 Extractive sampling and non-dispersive infra-red analysis (NDIR)
	Total volatile organic compounds (VOC), expressed as Carbon		1750 mg/m^3		Annual	BS EN 12619:1999 or BS EN 13526:2002 Extractive sampling and flame ionisation detection analysis (FID)
	Total non-methane volatile organic compounds (NMVOC)		150 mg/m^3		Annual	BS EN 13649:2002 Extractive sampling onto sorbent
	Oxides of sulphur		No limit set		Annual	*BS 6069-4.4:1993* Extractive sampling and FTIR analysis

Table S4.2 Point source emissions to air – emission limits and monitoring requirements

Emission point Ref. & Location	Parameter	Source	Limit (including unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
Landfill Gas Engine No. G2 – located furthest from the flare as shown on drawing number 4665/ESID/12 revision 2 dated 21/08/2007.	Oxides of Nitrogen, expressed as NO_2	Exhaust of Gas Engine No G2	650 mg/m^3	Hourly mean	Annual	ISO 10849:1996 Extractive sampling and chemiluminescence
	Carbon Monoxide		1500 mg/m^3		Annual	ISO 12039:2001 Extractive sampling and non-dispersive infra-red analysis (NDIR)
	Total volatile organic compounds (VOC), expressed as Carbon		1750 mg/m^3		Annual	BS EN 12619:1999 or BS EN 13526:2002 Extractive sampling and flame ionisation detection analysis (FID)
	Total non-methane volatile organic compounds (NMVOC)		150 mg/m^3		Annual	BS EN 13649:2002 Extractive sampling onto sorbent
	Oxides of sulphur		No limit set		Annual	BS 6069-4.4:1993 Extractive sampling and FTIR analysis
Enclosed Flare Stack - located in the waste to energy gas generation compound.	Oxides of Nitrogen, expressed as NO_2	Landfill Gas Flare	150 mg/m^3	Hourly Mean	Annual	ISO 10849:1996 Extractive sampling and chemiluminescence
	Carbon Monoxide		50 mg/m^3		Annual	ISO 12039:2001 Extractive sampling and non-dispersive infra-red analysis (NDIR)
	Total volatile organic compounds (VOC), expressed as Carbon		10 mg/m^3		Annual	BS EN 12619:1999 or BS EN 13526:2002 Extractive sampling and flame ionisation detection analysis (FID)
	Total non-methane volatile organic compounds (NMVOC)		5 mg/m^3		Annual	BS EN 13649:2002 Extractive sampling onto sorbent
	Operational Temperature		>1000°C		Weekly while flare operational	

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

Table S4.3 Point source emissions to water (other than sewer) – emission limits and monitoring requirements

Emission point Ref. & Location	Parameter	Source	Limit (incl unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
DC2 Located at national grid map reference SD 2159074829 and as shown on Drawing No. 1 dated 2nd October 2006. To Goldmire Beck	Ammoniacal Nitrogen	Site Drainage via Lagoons	1 mg/l	Spot sample	During discharge	As set out in the application or otherwise as agreed with the Agency.
	Electrical Conductivity		900 µS/cm	Spot sample		
	pH		>6 and <9 pH units	Instantaneous		
	Suspended Solids		75 mg/l	Spot sample		Measured after drying at 105 degrees Celsius
	Oil and Grease		None visible	Instantaneous		Observation

Table S4.4 Trigger levels for emissions into groundwater and monitoring requirements					
Monitoring point reference	**Parameter**	**Limit (including unit)**	**Reference Period**	**Monitoring frequency**	**Monitoring standard or method**
RH8 as shown on drawing 4665/ESID/22 revision 2 dated 21/08/2007.	Ammoniacal Nitrogen	1.0 mg/l (1)	Spot sample	Monthly	As set out in the application or otherwise as agreed with the Agency. Limit of detection for naphthalene – 0.05 µg/l
	Chloride	250 mg/l		Monthly	
	Nickel	0.049 mg/l		Quarterly	
	Cadmium	0.0001 mg/l		Quarterly	
	Mecoprop	0.00004 mg/l		6 Monthly	
	Naphthalene	0.0003 mg/l		6 Monthly	
RH13 as shown on drawing 4665/ESID/22 revision 2 dated 21/08/2007.	Ammoniacal Nitrogen	1.0 mg/l (1)	Spot sample	Monthly	
	Chloride	250 mg/l		Monthly	
	Nickel	0.2 mg/l		Quarterly	
	Cadmium	0.0001 mg/		Quarterly	
	Mecoprop	0.00004 mg/l		6 Monthly	
	Naphthalene	0.0003 mg/l		6 Monthly	

(1) Based upon a monthly moving average over 3 consecutive monthly reporting periods.

Table S4.5 Landfill gas in external monitoring boreholes – limits and monitoring requirements				
Monitoring point Ref. /description (1)	**Parameter**	**Limit (including units)**	**Monitoring frequency**	**Monitoring standard or method**
BH3, BH5, BH6R, BH7, BH8, BH9, BH10, BH11, BH12R, BH13, BH15, BH16, RH6R, RH12R and RH101	Methane	1 %v/v	Monthly	As set out in the application or otherwise as agreed with the Agency.
	Oxygen	No limit		
	Atmospheric pressure	No limit		
	Differential Pressure	No limit		
	Meteorological data	No limit		
BH3, BH5, BH7, BH8, BH9, BH10, BH11, BH13, BH15, RH6R and RH12R	Carbon Dioxide	5%%v/v		
BH6R	Carbon Dioxide	4 %v/v		
BH12R	Carbon Dioxide	2.2%v/v		
BH16	Carbon Dioxide	2.5 %v/v		
BH101	Carbon Dioxide	2.5 %v/v		

(1) As shown on drawing number 4665/ESID/13A revision 1 dated 05/09/2007.

Table S4.6 Landfill gas from capped surfaces - monitoring requirements				
Monitoring point Ref. /description	**Parameter**	**Monitoring frequency**	**Other specifications**	**Monitoring Standard or method**
Permanently capped zone	Average methane flux and total methane emission	Annually*	Where the average zone emission rate of 0.001 mg/m^2/second is exceeded appropriate measures must be taken to reduce the rate.	As per LFTGN 07 or as otherwise agreed in writing by the Agency.
Temporarily capped zone	Average methane flux and total methane emission	Annually*	Where the average zone emission rate of 0.1 mg/m^2/second is exceeded appropriate measures must be taken to reduce the rate.	As per LFTGN 07 or as otherwise agreed in writing by the Agency.

Footnote * If a cap has previously been shown compliant and there have been no significant physical changes in the gas management during the year, a detailed walkover survey can be used to demonstrate that the surface emissions are under control. If this survey shows no change in the pattern of methane emission, it may be used as the annual survey. The values for flux and total methane emissions measured in the previous year may be reported and a fresh flux box survey is not necessary. If the zone remains stable, the results of a full walkover survey may be accepted as the site report for a period of four years before a further quantitative flux box survey is required.

Table S4.7 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**
WL101, WL102, WL103, WL104, WL105, WL106, WL107, WL 108, WL109, WL110, WL201, WL202 and WL203 as shown on drawing 4665/ESID/13B revision 1 dated 25/09/2007.	Methane Carbon Dioxide Oxygen Atmospheric pressure Differential Pressure Meteorological data	Monthly	As set out in the application or otherwise as agreed with the Agency.	-
Gas collection system at well control valve and manifolds on gas system on permanent and temporarily capped areas	Methane Carbon Dioxide Oxygen Carbon Monoxide Atmospheric pressure Differential pressure Gas flow rate	At frequencies specified in table 5.4 of LFTGN 03		Where the Oxygen level exceeds 5% or where the addition of the Carbon Dioxide and Methane percentages is less than 80%, an assessment of air ingress into the system shall be undertaken.

Table S4.7 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**
Manifold on main line carrying the landfill gas to the gas utilisation plant.	Trace gas analysis	Annually	Agency guidance not LFTGN monitoring of trace components in landfill gas	-
Input to Landfill Gas Engines G1, G2 and flare.	Methane Carbon Dioxide Oxygen Gas flow rate	Continuous	As set out in the application or otherwise as agreed with the Agency.	Where the Oxygen level exceeds 5% or where the addition of the Carbon Dioxide and Methane percentages is less than 80%, an assessment of air ingress into the system shall be undertaken.

Table S4.8 Leachate– other monitoring requirements					
Emission point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications – Assessment criteria (1)**	
Leachate monitoring point Phase 2 – 2/104 as detailed on drawing 4665/ESID10 revision 2	Electrical conductivity, Chloride, Ammoniacal – N, pH, Temperature. Total alkalinity, Magnesium, Potassium, Total sulphates, Calcium, Sodium, BOD and COD, TOC, TON, Manganese, Iron, Chromium, Copper, Lead, Zinc, Nickel, Mercury, Mecoprop, Naphthalene and Cadmium.	Quarterly	As set out in the application or otherwise as agreed with the Agency.	Ammoniacal – N Chloride Cadmium Mecoprop Naphthalene Nickel	1875 mg/l 1860 mg/l 0.056 mg/l 0.07 mg/l 0.161 mg/l 0.224 mg/l
	List I /II Screen.	Annually		Leachate head	3.0 above base of well
Leachate monitoring points Phase 2 – 2/101, 2/102, 2/104, 2/105, 2/109, 2/110, 2/111 and 2/119 Phase 3 – 3/2E Phase 5 – Cell 3 - 5/3/A and 5/3/B; Cell 4 - 5/4/A and 5/4/B; and Cell 5 - 5/5/A and 5/5/B as detailed on drawing 4665/ESID10 revision 2.	Monitoring point base.	Annually		-	-

Table S4.8 Leachate– other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications – Assessment criteria (1)	
Leachate extraction wells Phase 3 – 3/1W (2) and 3/2W as detailed on drawing 4665/ESID10 revision 2	Volume discharged, Electrical conductivity, Chloride, Ammoniacal – N, pH and Temperature.	Monthly	As set out in the application or otherwise as agreed with the Agency.	Ammoniacal – N	1635 mg/l
				Chloride	1675 mg/l
				Cadmium	0.003 mg/l
				Mecoprop	0.07 mg/l
				Naphthalene	0.161 mg/l
				Nickel	0.224 mg/l
	Total alkalinity, Magnesium, Potassium, Total sulphates, Calcium, Sodium, BOD and COD, TOC, TON, Manganese, Iron, Chromium, Copper, Lead, Zinc, Nickel, Mercury, Mecoprop, Naphthalene and Cadmium.	Quarterly		Leachate head	0.9 m above base of well (2)
Leachate extraction well Phase 4 - 4C as detailed on drawing 4665/ESID10 revision 2.				Ammoniacal – N	936 mg/l [1]
				Chloride	1688 mg/l [1]
				Cadmium	0.056 mg/
				Mecoprop	0.07 mg/l
				Naphthalene	0.160 mg/l
				Nickel	0.192 mg/l
				Leachate head	0.9m above base of liner
Leachate extraction wells Phase 5 – Cell 1 – 5/1; Cell 2 – 5/2; Cell 3 - 5/3; Cell 4 - 5/4; as detailed on drawing 4665/ESID10 revision 2	Monitoring point base. List I /II Screen.	Annually Annually		Ammoniacal – N	1875 mg/l
				Chloride	1860 mg/l
				Cadmium	0.088 mg/l
				Mecoprop	0.07 mg/l
				Naphthalene	0.160 mg/l
				Nickel	0.20 mg/l
				Leachate head	0.9m above base of liner
Leachate extraction well Phase 5 - Cell 5 – 5/5 as detailed on drawing 4665/ESID10 revision 2				Ammoniacal – N	1875 mg/l
				Chloride	1860 mg/l
				Cadmium	0.056 mg/l
				Mecoprop	0.07 mg/l
				Naphthalene	0.161 mg/l
				Nickel	0.224 mg/l
				Leachate head	0.9m above base of line

Table S4.8 Leachate– other monitoring requirements				
Emission point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications – Assessment criteria (1)**

(1) If the assessment criteria for leachate monitoring for the parameter(s) and monitoring point(s) are exceeded the Operator shall:

- advise the Agency and confirm the exceedance writing;
- within 15 working days of receipt of the results by the Operator re-sample the monitoring location/s where the exceedance occurred; and
- where analysis of the re-sample confirms an exceedance of the assessment levels the operator shall re-evaluate the hydrogeological risk assessment model. A copy of the re-evaluation report shall be forwarded to the Agency within 3 months.

(2) These limits shall not apply until 1st April 2008 unless agreed otherwise in writing with the Agency

Table S4.9 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**
DC2 - Discharge point; SW1 - Upstream monitoring point; SW2 - Downstream monitoring point; SW3 - Downstream monitoring point; SW4 - Downstream pond on Goldmire Beck as shown on Drawing No. 1 dated 2nd October 2006; and Lagoons A, C and D (1)	pH Suspended solids Electrical conductivity Chloride Ammoniacal nitrogen	Monthly	As set out in the application or otherwise as agreed with the Agency.	
Lagoons A, C and D	Oil and grease	Daily		

1 Before discharge pumping operations are carried out.

Table S4.10 Groundwater – other monitoring requirements				
Emission point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
Groundwater monitoring boreholes WB1, WB2, WB3, RH5R, RH6R, RH8, RH12R, RH13, RH101, RH102, RH103 and RH104 as shown on drawing 4665/ESID/22 revision 2 dated 21/08/2007.	Water level, Electrical conductivity, Chloride, Ammoniacal – N, pH, Temperature and Dissolved Oxygen	Monthly	As set out in the application or otherwise as agreed with the Agency. Limit of detection for naphthalene – 0.05 µg/l.	Assessment Criteria RH8 Ammoniacal N – 0.9 mg/l (1) Chloride – 56 mg/l RH13 Ammoniacal N – 0.9 mg/l (1) Chloride - 79 mg/l If the assessment criteria for emissions to groundwater for the parameter(s) and monitoring point(s) are exceeded the actions detailed in the Groundwater Action Plan shall be instigated.
	COD, TOC, Total alkalinity, Magnesium, Potassium, Total sulphates, Calcium, Sodium, Nitrates, Nitrites, TON, Manganese, Iron, Chromium, Copper, Lead, Zinc, Nickel and Cadmium	Quarterly		
	Mecoprop and Naphthalene	6 Monthly		
	Monitoring point base List I screen	Annually		

1. Based upon a monthly moving average over 3 consecutive monthly reporting periods.

Table S4.11 Particulate matter in ambient air - limits and monitoring requirements					
Monitoring Point Ref. /Description	**Parameter**	**Limit (Including Unit)**	**Reference Period**	**Monitoring Frequency**	**Monitoring Standard or Method**
EMP1 as shown on drawing number 1 of report 05529660.502/A.0 dated 28/02/2006.	Deposited dust	None set	-	Daily	(1) As set out in report 05529660.502/A.0 dated 28/02/2006 as amended by letter reference AK/EMSC113/BM6093IS/BR.
EMP2, EMP3 and EMP4 as shown on drawing number1 of report 05529660.502/A.0 dated 28/02/2006.				Daily (1)	
Meteorological assessment				Daily	

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	Phase 2 - 2/101, 2/102, 2/104, 2/105, 2/109, 2/110, 2/111 and 2/119 Phase 3 - Cell 1 - 3/1W, Cell 2 - 3/2W, and 3/2E Phase 4 - 4C Phase 5 – Cell 1 - 5/1; Cell 2 - 5/2; Cell 3 - 5/3, 5/3/A and 5/3/B; Cell 4 - 5/4, 5/4/A and 5/4/B; Cell 5 - 5/5, 5/5/A and 5/5/B.	Quarterly	07/11/05
Emissions to air Parameters as required by condition 3.6.1	G1, G2 and Flare	Annually	07/11/05
Emissions to water Parameters as required by condition 3.6.1	DC2	Quarterly	07/11/05
Groundwater Parameters as required by condition 3.6.1	WB1, WB2, WB3, RH5R, RH6R, RH8, RH12R, RH13, RH101, RH102, RH103 and RH104.	Quarterly	07/11/05
Mecoprop		6 Monthly	
Napthalene		6 Monthly	
Monitoring point base		Annually	
List I		Annually	
Landfill gas surface emissions Parameters as required by condition 3.6.1	Permanently and temporarily capped zones	Annually	07/11/05
Particulate matter Parameters as required by condition 3.6.1	EMP1, EMP2, EMP3 and EMP4.	Quarterly	07/11/05
Landfill gas lateral migration Parameters as required by condition 3.6.1	BH3, BH5, BH6R, BH7, BH8, BH9, BH10, BH11, BH12R, BH13, BH15, BH16, RH6R, RH12R and RH101	Quarterly	07/11/05
Other Landfill gas monitoring Parameters as required by condition 3.6.1	WL101, WL102, WL103, WL104, WL105, WL106, WL107, WL 108, WL109, WL110, .WL201, WL202 and WL203.	Quarterly	07/11/05
Trace gas analysis	Manifold on main line carrying the landfill gas to the gas utilisation plant..	Annually	
Other leachate monitoring Parameters as required by condition 3.6.1	Phase 2 - 2/104. Phase 3 - Cell 1 - 3/1W and Cell 2 - 3/2W. Phase 4 - 4C. Phase 5 – Cell 1 - 5/1; Cell 2 - 5/2;	Quarterly	07/11/05
List I/II Screen	Cell 3 - 5/3;	Annually	
Monitoring point base	Cell 4 - 5/4; Cell 5 - 5/5.	Annually	

Table S5.1 Reporting of monitoring data			
Parameter	**Emission or monitoring point/reference**	**Reporting period**	**Period begins**
Other leachate monitoring Parameters as required by condition 3.6.1 (Cont.) Monitoring point base	Phase 2 - 2/101, 2/102, 2/105, 2/109, 2/110, 2/111 and 2/119. Phase 3 – 3/2E. Phase 5 – Cell 3 - 5/3/A and 5/3/B; Cell 4 - 5/4/A and 5/4/B; Cell 5 - 5/5/A and 5/5/B.	Annually	07/11/05
Other surface water monitoring Parameters as required by condition 3.6.1	DC2, SW1, SW2, SW3, SW4 and site collection lagoons A, C, and D.	Quarterly	07/11/05

Table S5.2: Annual production/treatment	
Leachate: **Disposed of off site;** **Disposed of to any onsite effluent treatment plant;** **Re-circulated into the waste mass.**	**Cubic metres/year**
Surface water and/ or groundwater: **Disposed of off site;**	**Cubic metres/year**
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**
Energy used (including for leachate treatment)	Annually		MWh of electricity

Table S5.4 Reporting Forms		
Media/parameter	**Reporting Format**	**Date of Form**
Leachate	Form leachate 1 or other reporting format to be agreed in writing with the Agency	01/01/2008
Air	Form Air 1 or other reporting format to be agreed in writing with the Agency	01/01/2008
Controlled water	Form Water 1 or other reporting format to be agreed in writing with the Agency	01/01/2008
Groundwater	Form Groundwater 1 or other reporting format to be agreed in writing with the Agency	01/01/2008
Landfill gas	Form LFG 1 or other reporting format to be agreed in writing with the Agency	01/01/2008
Particulate matter	Form Particulate 1 or other reporting format to be agreed in writing with the Agency	01/01/2008
Waste Return	Waste Return Form RATS2E	01/01/2008
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	**BM6093IS**
Name of operator	**WRG Waste Services Limited**
Location of Installation	**Bennett Bank Landfill** **Thwaite Flat** **Barrow-in-Furness** **Cumbria** **LA14 4QH**
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or fugitive emission which has caused, is causing or may cause significant pollution	
To be notified within 24 hours of detection	
Date and Time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

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

Time periods for notification following detection of a breach of a limit	
Parameter	**Notification period**

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

Part B to be supplied as soon as practicable

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

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of ***WRG Waste Services Limited.***

Schedule 7 - Interpretation

"*Accident*" means an accident that may result in pollution.

"*Annually*" means once every Year.

"*Application*" means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 4 to the PPC Regulations

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

"*Background concentration*" means such concentration of that substance as is present in:

- For emissions to surface water, the surface water quality up-gradient of the site; or
- For emissions to sewer, the surface water quality up-gradient of the sewage treatment works discharge; or
- For emissions of landfill gas, the ground or air outside the site and not attributable to the site.

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

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

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

"*Fugitive emission*" means an emission to air, water or land from the activities which is not controlled by an emission or background concentration limit.

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

"*Landfill Infrastructure*" means any specified element of the:

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

within the site.

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

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

"*Liquids*" means any liquid other than leachate within the engineered landfill containment system.

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

"*LFTGN 08*" means Environment Agency Guidance for monitoring landfill gas engines, September 2004.

"*New Cell*" means any new cell, part of a cell or other similar new area of the site where waste deposit is to commence after issue of this permit and can comprise:

- groundwater under-drainage system;
- permanent geophysical leak location system;
- leak detection layer;
- sub-grade;
- barriers;
- liners;
- leachate collection system;
- leachate abstraction system;
- separation bund/layer;
- cell or area surface water drainage system;
- side wall subgrade and containment systems;

for the New Cell.

"*No impact*" means that the change made to the construction process will not affect the agreed design criteria, specification or performance in a way that has a negative effect.

"notify without delay" and "notified without delay" means that a telephone call can be used, whereas all other reports and notifications must be supplied in writing, either electronically or on paper.

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

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

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

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

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

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

"Waste code" means the six digit code referable to a type of waste in accordance with the List of Wastes (England) Regulations 2005, or List of Wastes (Wales) Regulations 2005, List of Wastes (Northern Ireland) Regulations 2005 (as amended), or The Special Waste Amendment (Scotland) Regulations 2004 as appropriate, and in relation to hazardous waste, includes the asterisk

"*Year*" means calendar year ending 31 December.

Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.
Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means the standards included in Environment Agency Guidance for Monitoring Enclosed Landfill Gas Flares LFTGN 05 or Guidance for Monitoring Landfill Gas Engine Emissions LFTGN 08.

END OF PERMIT

Permit Number: BM6093IS Operator: Waste Recycling Group Limited

Installation: Bennett Bank Landfill Form Number: Particulate1 / 01/01/2008

Reporting of particulates for the period from DD/MM/YYYY **to** DD/MM/YYYY

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
A1	Particulate Matter	mg/m^3	Continuous		BS EN 13284-1		
A1	Particulate Matter	mg/m^3	1 hour period		BS EN 13284-1		

The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.
Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. gas chromatography.
For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed ..... Date.....
(Authorised to sign as representative of Operator)

Permit Number: BM6093IS Operator: Waste Recycling Group Limited

Installation: Bennett Bank Landfill Form Number: Groundwater1 / 01/01/2008

Reporting of groundwater monitoring for the period from DD/MM/YYYY **to** DD/MM/YYYY

Monitoring Point	Substance / Parameter	Trigger level	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
GW1	Mercury and its compounds, expressed as mercury (Total Hg)	0.005 mg/l			BS EN 135006		
GW1	Cadmium and its compounds, expressed as cadmium (Total Cd)	0.01 mg/l			BS 6068-2.89		
GW1	pH	6-10			BS6068-2.50		
GW1	BOD	25 mg/l			BS EN 1899-1 (1998)		

The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.
Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. gas chromatography.
For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed ..... Date.....
(Authorised to sign as representative of Operator)

Permit Number: BM6093IS Operator: Waste Recycling Group Limited

Installation: Bennett Bank Landfill Form Number: Leachate 1 / 01/01/2008

Reporting of leachate monitoring for the period from DD/MM/YYYY **to** DD/MM/YYYY

Monitoring Point	Substance / Parameter	Compliance limit	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
L1	leachate head	X m above cell base					

The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.
Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. gas chromatography.
For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed ..... Date.....
(Authorised to sign as representative of Operator)

Permit Number: BM6093IS Operator: Waste Recycling Group Limited

Installation: Bennett Bank Landfill Form Number: LFG1 / 01/01/2008

Reporting of landfill gas monitoring for the period from DD/MM/YYYY **to** DD/MM/YYYY

Monitoring Point	Substance / Parameter	Compliance limit	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
LFG1	methane	1 % v/v					
LFG 1	carbon dioxide	1.5 % v/v					
LFG 1	*oxygen*	-					

The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.
Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. gas chromatography.
For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed ..... Date.....
(Authorised to sign as representative of Operator)

Permit Number: BM6093IS Operator: Waste Recycling Group Limited

Installation: Bennett Bank Landfill Form Number: Water1 / 01/01/2008

Reporting of emissions to water (other than to sewer) for the period from DD/MM/YYYY **to** DD/MM/YYYY

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
W1	Total suspended solids	30 mg/l	For 95% of all measured values of periodic samples taken over one month		BS EN 872		
W1	Mercury and its compounds, expressed as mercury (Total Hg)	0.005 mg/l	24-hour flow proportional sample		BS EN 135006		
W1	Cadmium and its compounds, expressed as cadmium (Total Cd)	0.01 mg/l	24-hour flow proportional sample		BS 6068-2.89		
W1	pH	6-10	Continuous		BS6068-2.50		
W1	BOD	25 mg/l	Periodic		BS EN 1899-1 (1998)		

The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.
Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. gas chromatography.
For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed ..... Date.....
(Authorised to sign as representative of Operator)

Permit Number: BM6093IS Operator: Waste Recycling Group Limited

Installation: Bennett Bank Landfill Form Number: Air1 / 01/01/2008

Reporting of emissions to air for the period from DD/MM/YYYY **to** DD/MM/YYYY

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
A1	VOC as Total Organic Carbon (TOC)	20 mg/m^3	1 hour period		BS EN 12619		
A1	Hydrogen chloride	30 mg/m^3	1 hour period		BS EN 1911		
A1	Hydrogen fluoride	2 mg/m^3	1 hour period		US EPA 26/26A		
A1	Carbon monoxide	100 mg/m^3	(average of ½-hour averages) over minimum 4 hour period		ISO12039		
A1	Sulphur dioxide	200 mg/m^3	(average of hourly averages) over minimum 4 hour period		BS6069-4.1		
A1	Sulphur dioxide	150 mg/m^3	Continuous		BS6069-4.1		
A2	Oxides of nitrogen (NO and NO_2 expressed as NO_2)	400 mg/m^3	(average of ½-hour averages) over minimum 4 hour period		ISO 10849		
A2	Cadmium & thallium and their compounds (total)	0.05 mg/m^3	over minimum 30 minute, maximum 8 hour period		BS EN 14385		
A2	Mercury and its compounds	0.05 mg/m^3	over minimum 30 minute, maximum 8 hour period		BS EN 13211		
A2	Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V and their compounds (total)	0.5 mg/ m^3	over minimum 30 minute, maximum 8 hour period		BS EN 14385		

The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.

Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. gas chromatography.
For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed ..... Date.....
(Authorised to sign as representative of Operator)