Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

Newport City Council

Docksway Area 2 Landfill
Docksway
Maes Glas
Newport
Gwent
NP20 2NS

Permit number

EPR/DP3733BK

Docksway Landfill
Permit number EPR/DP3733BK

Introductory note

This introductory note does not form a part of the permit

The main features of the permit are as follows.

Docksway Area 2 landfill is located approximately 2.5km south of Newport, Gwent. The installation incorporates the landfill and a waste reception area with access road.

The landfill is located on low lying former wasteland between the estuary of the River Ebbw and Newport Docks. Part of this land has been reclaimed from the original course of the River Ebbw by a river diversion which has realigned the river to the west of the side.

Docksway Landfill Area 1 which is an existing closed landfill lies immediately to the north of this area and is separated from Area 2 by an engineered cut-off barrier. Area 1 no longer accepts waste materials, though it is included as part of the existing waste management licence area, EAWML/30085.

The landfill is developed in a progressive manner with five principal cells dividing the 16Ha site into cells of generally 30,000m^2. Each cell is a fully engineered containment cell with a natural geological barrier and an artificial sealing liner comprising a re-compacted mineral liner. No groundwater control systems are required as an unsaturated zone lies beneath the proposed formation. Leachate will be collected in a piped drainage blanket and abstracted for off-site treatment. Surface water is collected from the installation in a series of interceptor drains which discharge into the River Ebbw.

Asbestos containing wastes are deposited within a dedicated cell constructed on the engineered East side of the landfill. The deposit of Stable Non-Reactive Hazardous Wastes (SNRHW) (including asbestos) is permitted. Surface water in this cell will pass through a sand filter into an isolation lagoon, here the water is tested for asbestos fibres, if none are found the water is discharged to the River Ebbw. If asbestos fibres are present, the water is re-filtered and re-tested prior to discharge.

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

Status log of the permit		
Description	**Date**	**Comments**
Application DP3733BK	Received 09/11/2004	
Response to request for further information	Requested 02/02/2004	Received 13/04/2005
Provision of further information by applicant		Received 26/04/2005 Erratum notice reference Report No. A2/063
Permit determined	14/10/2005	
Variation notice MP3730MJ issued	10/05/2007	
Variation notice EPR/DP3733BK/V003	Issued 12/06/2009	
Application EPR/DP3733BK/V004	Received 14/05/2015	
Request for further information	05/06/2015	Information received 16/06/2015
Request for further information	29/06/2015	Information received 10/07/2015
Provision of further information by applicant		03/07/2015 & 08/07/2015
Schedule 5 notice issued to request more information	04/01/2016	Revised stability assessment
60 Day extension to Schedule 5 granted to operator	10/02/2016	
Provision of further information by applicant	08/03/2016	Information received
Request for further information	15/03/2016	Further Stability assessment
Provision of further information by applicant	24/03/2016	Information received
Permit Determined	18/07/16	

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2010

Permit number
EPR/DP3733BK

The Natural Resources Body for Wales ("Natural Resources Wales") authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2010

Newport City Council ("the operator"),

whose registered office is
Civic Centre
Newport
Gwent
NP20 4UR

to operate an installation at
Docksway (Area 2) Landfill
Docksway
Maes Glas
Newport
Gwent
NP20 2NS

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

Signed	Date
	**18 July 2016**

Eirian Macdonald

Authorised on behalf of Natural Resources Wales

Conditions

1 Management

1.1 General management

1.1.1 The operator shall manage and operate the activities:

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

(b) using sufficient competent persons and resources.

1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.

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

1.1.4 The operator shall comply with the requirements of an approved competence scheme.

1.2 Finance

1.2.1 The financial provision for meeting the obligations under this permit agreement made between the operator and Natural Resources Wales dated 14/11/2005 shall be maintained by the operator throughout the subsistence of this permit and the operator shall produce evidence of such provision whenever required by Natural Resources Wales.

1.2.2 The operator shall ensure that the charges it makes for the disposal of waste in the landfill cover all of the following:

(a) the costs of setting up and operating the landfill;

(b) the costs of the financial provision required by condition 1.2.1; and

(c) the estimated costs for the closure and aftercare of the landfill.

2 Operations

2.1 Permitted activities

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

2.2 The site

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

2.3 Operating techniques

2.3.1 (a) The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by Natural Resources Wales.

(b) If notified by Natural Resources Wales that the activities are giving rise to pollution, the operator shall submit to Natural Resources Wales for approval within the period specified, a revision of any plan or other documentation ("plan") specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan , and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by Natural Resources Wales.

2.4 Improvement programme

2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by Natural Resources Wales.

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

2.5 Landfill Engineering

2.5.1 No construction of any new cell of the landfill shall commence until the operator has submitted construction proposals and Natural Resources Wales has confirmed that it is satisfied with the construction proposals.

2.5.2 Where the operator proposes to construct any new cell other than the first cell, but proposes no change from the design of the most recently approved cell which could have any impact on the performance of any element of the design, no construction of the new cell shall commence until the operator has submitted a cell layout drawing and Natural Resources Wales has confirmed that it is satisfied with the cell layout drawing.

2.5.3 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 Natural Resources Wales.

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

2.5.5 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 Natural Resources Wales has confirmed that it is satisfied with the construction proposals.

2.5.6 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 Natural Resources Wales.

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

2.5.8 Where pollution controls are immediately necessary to prevent an incident or accident, then conditions 2.5.5 and 2.5.6 do not apply and the relevant landfill infrastructure may be constructed, provided that the construction proposals are submitted to Natural Resources Wales as soon as practicable.

2.5.9 For the purposes of conditions 2.5.1, 2.5.2, 2.5.4 and 2.5.5, Natural Resources Wales shall be deemed to be satisfied where it has not, within the period of four 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.

2.5.10 Where Natural Resources Wales has required further information under condition 2.5.9(b), Natural Resources Wales shall be deemed to be satisfied where it has not, within the period of four weeks from the date of receipt of the further information, either:

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

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

2.6 Waste acceptance

2.6.1 Wastes shall only be accepted for disposal if:

(a) they are listed in schedule 2, and

(b) they are non- hazardous waste or asbestos and construction materials containing asbestos or stable, non-reactive hazardous wastes, 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 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, [or liquid waste accepted for treatment at a permitted leachate treatment activity, and

(k) where they are wastes with a code beginning with 07 05 and 16 03, they shall exclude waste medicinal products and pharmaceutically active waste materials arising from their manufacture.

2.6.2 Asbestos containing wastes and construction materials containing asbestos shall only be disposed of with other suitable wastes and not in cells containing biodegradable non-hazardous waste. Asbestos waste and construction material containing asbestos must meet the relevant waste acceptance criteria and must be covered daily and before each compaction operation with appropriate material.

2.6.3 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.

2.6.4 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.

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

2.6.6 The total quantity of waste that shall be deposited in the landfill shall be limited by the pre-settlement levels shown on drawing 14739/007/203

2.6.7 The quantity of waste that is deposited in the landfill in any year shall not exceed the limits in schedule 1 table S1.5.

2.6.8 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.

2.6.9 The operator shall maintain and implement a system to record the disposal location of any Hazardous Waste.

2.7 Leachate levels

2.7.1 The limits for the level of leachate listed in schedule 3 table S3.1 shall not be exceeded.

2.8 Closure and aftercare

2.8.1 The operator shall maintain a closure and aftercare management plan.

2.9 Landfill gas management

2.9.1 The operator shall take appropriate measures, including, but not limited to, those specified in any approved landfill gas management plan, to:

(a) collect landfill gas; and

(b) control the migration of landfill gas.

2.9.2 The operator shall use the collected landfill gas to produce energy. If the collected landfill gas cannot be used to produce energy, the operator shall flare the gas.

2.9.3 The operator shall:

(a) if notified by Natural Resources Wales, submit to Natural Resources Wales for approval within the period specified, a revised landfill gas management plan;

(b) implement the revised landfill gas management plan, from the date of approval, unless otherwise agreed in writing by Natural Resources Wales.

3 Emissions and monitoring

3.1 Emissions to water, air or land

3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.2

3.1.2 The limits given in schedule 3 shall not be exceeded.

3.1.3 There shall be no emission from the activities into groundwater of any hazardous substances contrary to the EP Regulations.

3.1.4 There shall be no emission from the activities into groundwater of any non-hazardous pollutants so as to cause pollution.

3.1.5 The compliance limits for emissions into groundwater for the parameter(s) and monitoring point(s) set out in schedule 3 table S3.3 shall not be exceeded.

3.1.6 The operator shall submit to Natural Resources Wales a review of the Hydrogeological Risk Assessment:

(a) between nine and six months prior to the sixth anniversary of the granting of the permit, and

(b) between nine and six months prior to every subsequent six years after the sixth anniversary of the granting of the permit.

3.1.7 The limits for landfill gas arising from the installation set out in schedule 3, tables S3.4 and S3.5 shall not be exceeded.

3.1.8 The limits for particulate matter arising from the installation set out in Schedule 3, table S3.8 shall not be exceeded.

3.2 Emissions of substances not controlled by emission limits

3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.2.2 The operator shall:

(a) if notified by Natural Resources Wales that the activities are giving rise to pollution, submit to Natural Resources Wales for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;

(b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by Natural Resources Wales.

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

3.3 Odour

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

3.3.2 The operator shall:

(a) if notified by Natural Resources Wales that the activities are giving rise to pollution outside the site due to odour, submit to Natural Resources Wales for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;

(b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by Natural Resources Wales.

3.4 Noise and vibration

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

3.4.2 The operator shall:

(a) if notified by Natural Resources Wales that the activities are giving rise to pollution outside the site due to noise and vibration, submit to Natural Resources Wales for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;

(b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by Natural Resources Wales.

3.5 Pests

3.5.1 The activities shall not give rise to the presence of pests which are likely to cause pollution, hazard or annoyance outside the boundary of the site. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.

3.5.2 The operator shall:

(a) if notified by Natural Resources Wales, submit to Natural Resources Wales for approval within the period specified, a pests management plan which identifies and minimises risks of pollution, hazard or annoyance from pests;

(b) implement the pests management plan, from the date of approval, unless otherwise agreed in writing by Natural resources Wales

3.6 Monitoring

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

(a) Leachate specified in tables S3.1 and S3.6;

(b) Point source emissions specified in tables S3.2,

(c) Groundwater specified in tables S3.3 and S3.7;

(d) Landfill gas specified in tables S3.4 and S3.5;

(e) Particulate matter specified in table S3.8.

(f) Separation bund topography and Separation bund inclination as specified in table S3.9

(g) Process monitoring requirements as specified in table S3.10

3.6.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

3.6.3 A topographical survey of the site referenced to ordnance datum shall be carried out:

(a) annually, and

(b) prior to the disposal of waste in any new cell or new development area of the landfill, and

(a) following closure of the landfill or part of the landfill.

The topographical survey shall be used to produce a plan of a scale adequate to show the surveyed features of the site.

3.6.4 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.6.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by Natural Resources Wales.

3.6.5 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1 - S3.10 unless otherwise agreed in writing by Natural Resources Wales.

4 Information

4.1 Records

4.1.1 All records required to be made by this permit shall:

(a) be legible;

(b) be made as soon as reasonably practicable;

(c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and

(d) be retained, unless otherwise agreed in writing by Natural Resources Wales, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:

(i) the results of groundwater monitoring;

(ii) sub-surface landfill gas monitoring;

(iii) leachate levels, quality and quantities;

(iv) landfill gas generation and collection;

(v) waste types and quantities;

(vi) the location of Hazardous Waste deposits; and

(vii) the specification and as built drawings of the basal, sidewall and capping engineering systems.

(viii) the results of the asbestos cell separation bund topographic and inclination surveys

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

4.2 Reporting

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

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

(a) a review of the results of the monitoring and assessment carried out in accordance with 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) the energy consumed at the site, reported in the format set out in schedule 4 table S4.3

(c) the annual production/treatment set out in schedule 4 table S4.2;

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

(e) the volumetric difference (reported in cubic meters) 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;

(f) 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;

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

(h) an assessment of the deformation behaviour of the separation bund based on the results of topographic surveys and inclinometer readings together with a comparison of this measured deformation to the deformation predicted during the Stability Risk Assessment review until completion of the asbestos cell.

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

(a) in respect of the parameters and emission points specified in schedule 4 table S4.1;

(b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and

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

4.2.4 Within one month of the end of each quarter, the operator shall submit to Natural Resources Wales using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.

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

4.3 Notifications

4.3.1 (a) In the event that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—

(i) inform Natural Resources Wales,

(ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and

(iii) take the measures necessary to prevent further possible incidents or accidents;

(b) in the event of a breach of any permit condition the operator must immediately—

(i) inform Natural Resources Wales, and

(ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;

(c) in the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.

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

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

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

Where the operator is a registered company:

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

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

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

(a) any change in the operator's name or address; and

(b) any steps taken with a view to the dissolution of the operator.

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

(a) Natural Resources Wales shall be notified at least 14 days before making the change; and

(b) the notification shall contain a description of the proposed change in operation.

4.4 Interpretation

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

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

Schedule 1 - Operations

Table S1.1 activities			
Activity reference	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity and WFD Annex I and II operations**	**Limits of specified activity**
A1	Section 5.2 Part A (1) (a): The disposal of waste in a landfill	Landfill for non-hazardous and asbestos containing wastes (D5 – Specially engineered landfill)	Receipt, handling, storage and disposal of wastes, consisting of the types and quantities specified in condition 2.6, as an integral part of landfilling. The construction of the asbestos cell must be completed as described in the Stability Risk Assessment Review and subsequent revised information as listed in Table S1.2 – Operating techniques. Rate of filling in the landfill shall not exceed 2.0m per month There will be a hold period from filling when the waste reaches a height of 23.5m AOD until the pore water pressure in the alluvium is at an equivalent piezometric head of 10.88m OD or less. All piezometers are to show this reduction. A report is to be submitted outlining interpretations from monitoring results There will be a hold period from filling when the waste reaches a height of 33.5m AOD until the pore water pressure in the alluvium is at an equivalent piezometric head of 12.60m OD or less. All piezometers are to show this reduction. A report is to be submitted outlining interpretations from monitoring results There will be a 5m wide Municipal Solid Waste (MSW) buttress with a down gradient slope not exceeding 1(v) in 5(h) from the outer crest of the MSW buttress

Table S1.1 activities			
Activity reference	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity and WFD Annex I and II operations**	**Limits of specified activity**
	Directly Associated Activity		
A2	Leachate Management	Storage of leachate in a facility, prior to disposal off-site.	Leachate arising from the permitted landfill.
A3	Water discharges to controlled waters	Discharge of site drainage from the landfill.	From surface water management system to the point of entry to controlled water.
A4	Fuel Storage	Storage of fuel for operation of plant and equipment.	From storage of fuel to use in the operation of plant and equipment.

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application	The response to questions 2.1, 2.2, 2.3, 2.4 and 2.5 in Part B of the application form and document reference A2/001, excluding drawing reference 14739/007/SK07 and document reference A2/004. Document reference A2/051: Section 22 – extracts from Working Plant [sic Plan] – amenity management and monitoring and control of mud and debris.	09/11/2004
Letter, dates 13 April 2005, providing a response to the Schedule 4 Notice, dated 2 February 2005	Letter and attachments, document containing responses to each question, document reference A2/001 Rev A, A2/002 Rev A, A2/003 Rev A, A2/004 Rev A, A2/011 Rev A, As/012 Rev A, A2/063, A2/064, A2/065, A2/066, A2/067, A2/068, A2/070.	13/04/2005
Erratum Notice	Reference Report No. A2/063 – entire notice	26/04/2005
Drawing reference Number FIGURE 1 title Docksway Landfill Masterplan Area 2 dated 10/08/05 showing the definitive installation boundary	All	26/04/2005
Site protection and monitoring programme	Site protection and monitoring plan submitted in response to condition 2.11 of this permit.	20/07/2006
Variation Application	The response to question 1e in Part C of the application form, capping design.	10/02/2009
Submission of HRA review	Reference report HRA Review – Doc ref.- R001/rev00c	01/03/2012
Application	The response to question 5c in Part C2 of the application – non-technical summary	14/05/2015
Application	Supporting document – Asbestos construction and operational plan (NCC2015)(2506)	14/05/2015
Application	Supporting document – Risk Assessment for nuisance and health issues (NCC2015)	14/05/2015
Application	Supporting document – Table 1 (changes to activities)	14/05/2015
Application	The response to question 5a Part C3 of the application – site plan and engineering drawings	14/05/2015
Application	The response to question 3 Part C3 of the application – operating techniques table	14/05/2015
Application	Supporting documents (technical notes) - PR001 (Review of gas risk assessment), PR002 (Review of ESID report), PR003 (Non-Technical Summary)	14/05/2015

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application	Supporting document – Stability assessment. Doc ref – PBA2015	14/05/2015
Application	Supporting document – Revised stability assessment. Doc ref – 14739/155	14/05/2015
Application	Supporting document – Revised hydrogeological risk assessment. Doc ref – 14739/155	14/05/2015
Application	Revised coupled stability/deformation analysis of the separation structure in the asbestos cell	24/03/2016

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
1	The operator shall submit a report to NRW outlining how they aim to reduce the leachate head currently in the landfill from 3m to the currently permitted level of 2m	6 months from the issue of this variation
2	The Operator is to implement a geotechnical monitoring system as described in the Stability Risk Assessment Review and is to be monitored at the intervals stated, using inclinometers. The monitoring data is to be reviewed annually, compared with the finite element models and the results reported to Natural Resources Wales for approval.	6 months from the issue of this variation
3	The Operator is to submit for approval by Natural Resources Wales a plan showing additional monitoring points for airborne asbestos fibres at the eastern and northern most perimeter of the site.	6 months from the issue of this variation
4	The Operator is to carry out background monitoring to establish baseline levels of airborne asbestos fibre levels prior to disposal of any asbestos wastes. Once a baseline is established all monitoring points are to be monitored on a 6 monthly basis	6 months from the issue of this variation
5	Following the completion of the Asbestos cell and associated works a full CQA validation report will be prepared by the operator and submitted to Natural Resources Wales for approval	On completion of the works

Table S1.4B Pre-operational measures for future development		
Reference	**Operation**	**Pre-operational measures**
1a	Prior to waste deposit in Cells 1-5	The operator shall submit to Natural Resources Wales for approval, proposals to install at least 2 leachate monitoring points and 1 leachate abstraction point per cell (for cells up to 5ha in area). The proposal shall include details of location, construction methodology, design of wells and timetable for installation in accordance with condition 2.5.
1b	Prior to waste deposit in Cells 1-5	Within 1 month of the installation of the points installed under reference 1a above, a scale shall be submitted to Natural Resources Wales showing locations of all leachate monitoring and abstraction points with unique identifiers.
2	All future engineering	Landfill gas shall be collected as soon as reasonably practicable and within any case within 12 months of waste disposal commencing.

Table S1.5 Annual waste input limits	
Parameter	**Units (tonnes)**
Non – Hazardous Waste	51,750
Inert Waste	41,400
Hazardous Waste	10,350
Total Waste Deposits	103,500

Schedule 2 - Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	**Specification**
-	

Table S2.2 Permitted waste types and quantities for disposal by non-hazardous landfill	
Waste code	**Description**
1	**WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, PHYSICAL AND CHEMCIAL TREATMNENT OF METALS**
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 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 rock 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	Waste 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
2	**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	Sludge's 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 01 10	Waste metal
02 02	**Wastes from the preparation and processing of meat, fish and other foods of animal origin**
02 02 01	Sludge's from washing and cleaning
02 02 02	Animal tissue waste
02 02 03	Materials unsuitable for consumption or processing
02 02 04	Sludge's from on-site effluent

Table S2.2 Permitted waste types and quantities for disposal by non-hazardous landfill	
Waste code	**Description**
02 03	**Wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extraction production, molasses preparation and fermentation**
02 03 01	Sludge's from washing, cleaning, peeling centrifuging and separation
02 03 02	Wastes from preserving agents
02 03 03	Wastes from solvent extraction
02 03 04	Materials unsuitable for consumption
02 03 05	Sludge's 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	Sludge's from on-site effluent treatment
02 05	
02 05 01	Materials unsuitable for consumption or processing
02 05 02	Sludge's from on-site effluent treatment
02 06	**Wastes from the baking and confectionary industry**
02 06 01	Materials unsuitable for consumption or processing
02 06 02	Wastes from preserving agents
02 06 03	Sludge's 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 spirit distillation
02 07 03	Wastes from chemical treatment
02 07 04	Materials unsuitable for consumption or processing
02 07 05	Sludge's from on-site effluent treatment
3	**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 wood
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 liquid)
03 03 05	De0inking sludge's 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 sludge's from mechanical separation
03 03 11	Sludge's from on-site effluent treatment other than those mentioned in 03 03 10
4	**WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRY**
04 01	**Wastes from the leather and fur industry**
04 01 01	Fleshing's and lime split wastes
04 01 02	Liming waste
04 01 04	Tanning liquor containing chromium
04 01 05	Tanning liquor free of chromium
04 01 06	Sludge's, in particular from on-site effluent treatment containing chromium

Table S2.2 Permitted waste types and quantities for disposal by non-hazardous landfill	
Waste code	**Description**
04 01 07	Sludge's, in particular from on-site effluent treatment free of chromium
04 01 08	Waste tanned leather (blue sheeting, 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)
04 02 10	Organic matter from natural products (for example grease, wax)
04 02 15	Wates 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	Sludge's 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
5	**WASTES FROM PETROLEUM REFINING, NATURAL GAS PURIFICATION AND PYROLYTIC TREATMENT OF COAL**
05 01	**Wastes from petroleum refining**
05 01 10	Sludge's from on-site effluent treatment other than those mentioned in 05 01 09
05 01 13	Boiler feed water sludge's
05 01 14	Waste 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	Wastes from cooling columns
05 07	**Wastes from the natural gas purification and transportation**
05 07 02	Wastes containing sulphur
6	**WASTES FROM INORGANIC CHEMICAL PROCESSES**
06 03	**Wastes from the MSFU of salts and metallic oxides**
06 03 16	Metallic oxides other than those mentioned in 06 03 15
06 05	**Sludge's from on-site effluent treatment**
06 05 03	Sludge's from on-site effluent treatment other than those mentioned in 06 05 02
06 06	**Wastes from the MSFU of sulphur chemicals, sulphur chemical processes and desulphurisation processes**
06 06 03	Wastes containing sulphides other than those mentioned in 06 06 02
06 09	**Wastes from the MSFU of phosphorus chemicals and phosphorus chemical processes**
06 09 02	Phosphorus slag
06 09 04	Calcium-based reaction wastes from titanium dioxide production
06 11	**Wastes from the manufacture of inorganic pigments and opacifiers**
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
7	**WASTES FROM ORGANIC CHEMICAL PROCESSES**
07 01	**Wastes from the MSFU of basic organic chemicals**
07 01 12	Sludge's from on-site effluent treatment other than those mentioned in 07 01 11
07 02	**Wastes from the MSFU of plastics, synthetic rubber and man-made fibres**
07 02 12	Sludge's 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

Table S2.2 Permitted waste types and quantities for disposal by non-hazardous landfill	
Waste code	**Description**
07 03	**Wastes from the MSFU of organic dyes and pigments (except 06 11)**
07 03 12	Sludge's from on-site effluent treatment other than those mentioned in 07 03 11
07 04	**Wastes from the MSFU 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	Sludge's from on-site effluent treatment other than those mentioned in 07 04 11
07 06	**Wastes from the MSFU of fats, greases, soaps, detergents, disinfectants and cosmetics**
07 06 12	Sludge's from on-site effluent treatment other than those mentioned in 07 06 11
07 07	**Wastes from the MSFU of fine chemicals and other chemical products not otherwise specified**
07 07 12	Sludge's from on-site effluent treatment other than those mentioned in 07 07 11
8	**WASTES FROM THE MANUFACTURE , FORMULATION, SUPPLY AND USE (MSFU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS**
08 01	**Wastes from the MSFU and removal of paint and varnish**
08 01 14	Sludge's from paint or varnish other than those mentioned in 08 01 13
08 01 16	Aqueous sludge's 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 01 20	Aqueous suspensions containing paint or varnish other than those mentioned in 08 01 19
08 02	**Wastes from the MSFU of other coatings (including ceramic materials)**
08 02 01	Waste coating powders
08 02 02	Aqueous sludge's containing ceramic materials
08 02 03	Aqueous suspensions containing ceramic materials
08 03	**Wastes from the MSFU of printing inks**
08 03 07	Aqueous sludge's containing ink
08 03 08	Aqueous liquid waste containing ink
08 03 13	Waste ink other than those mentioned in 08 03 12
08 03 15	Ink sludge's 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 the MSFU 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 sludge's other than those mentioned in 08 04 11
08 04 14	Aqueous sludge's containing adhesives or sealants other than those mentioned in 08 04 13
08 04 16	Aqueous liquid waste containing adhesives or sealants other than those mentioned in 08 04 15
9	**WASTES FROM THE PHOTOGRAPHIC INDUSTRY**
09 01	**Wastes from the photographic industry**
09 01 07	Photographic film and paper containing silver compounds
09 01 08	Photographic film and paper free of silver or silver compounds
09 01 10	Single-use cameras without batteries
09 01 12	Single-use cameras containing batteries other than those mentioned in 09 01 11
10	**WASTES FROM THERMAL PROCESSES**
10 01	**Wastes from power stations and other combustion plants (except 19)**
10 01 01	Bottom ash, slag and boiler dust (except boiler dust mentioned in 10 01 04)
10 01 02	Coal fly ash
10 01 03	Fly ash from peat and un-treated wood

Table S2.2 Permitted waste types and quantities for disposal by non-hazardous landfill	
Waste code	**Description**
10 01 05	Calcium-based reaction waste from flue-gas desulphurisation in solid form
10 01 07	Calcium-based reaction waste from flue-gas desulphurisation in sludge form
10 01 15	Bottom ash, slag and boiler dust from co-incineration other than those mentioned in 10 01 14
10 01 17	Fly ash from co-incineration other than those mentioned in 10 01 16
10 01 19	Wastes from gas cleaning other than those mentioned in 10 01 05, 10 01 07 and 10 01 18
10 01 21	Sludge's from on-site effluent treatment other than those mentioned in 10 01 20
10 01 23	Aqueous sludge's 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 sector**
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	Sludge's and filter cakes from gas treatment other than those mentioned in 10 02 13
10 02 15	Other sludge's and filter cakes
10 03	**Wastes from Aluminium thermal metallurgy**
10 03 02	Anode scraps
10 03 05	Waste alumina
10 03 16	Skimming's other than those mentioned in 10 03 15
10 03 18	Carbon containing waste from anode manufacture other than those mentioned in 10 03 17
10 03 20	Flue gas dust 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	Sludge's and filter cakes from gas treatment other than those mentioned in 10 03 25
10 03 28	Wastes from cooling water treatment
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 processes
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 skimming's other than those mentioned in 10 05 10
10 06	**Wastes from Copper thermal metallurgy**
10 06 01	Slags from primary and secondary processes
10 06 02	Dross and skimming's from primary and secondary processes
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 processes
10 07 02	Dross and skimming's from primary and secondary processes

Table S2.2 Permitted waste types and quantities for disposal by non-hazardous landfill	
Waste code	**Description**
10 07 03	Solid wastes from gas treatment
10 07 04	Other particulates and dust
10 07 05	Sludge's 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 skimming's other than those mentioned in 10 08 10
10 08 13	Carbon containing waste from anode manufacture other than those mentioned in 10 08 12
10 08 14	Anode scrap
10 08 16	Flue gas dust other than those mentioned in 10 08 15
10 08 18	Sludge's and filter cakes from flue gas treatment
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 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 not 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 the 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 10 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	Sludge's 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

Table S2.2 Permitted waste types and quantities for disposal by non-hazardous landfill	
Waste code	**Description**
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	Sludge's and filter cakes from gas treatment
10 12 06	Discarded moulds
10 12 08	Waste ceramics, bricks, tiles and construction products (after thermal processing)
10 12 10	Solid wastes from gas treatment other than those mentioned in 10 12 09
10 12 12	Wastes from glazing other than those mentioned in 10 12 11
10 12 13	Sludge's from on-site effluent treatment
10 13	**Wastes from manufacture of Ceramic goods, Bricks, Tiles and Construction products**
10 13 01	Wastes 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	Sludge's 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 10
10 13 14	Waste concrete and concrete sludge
11	**WASTES FROM THE 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, phosphating, alkaline, degreasing, anodising)**
11 01 10	Sludge's 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 and aqueous electrolytic processes
11 02 06	Wastes from copper hydrometallurgical processes other than those mentioned in 11 02 05
11 05	**Wastes from hot galvanising processes**
11 05 01	Hard zinc
11 05 02	Zinc ash
12	**WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS**
12 01	**Wastes from shaping and physical and mechanical surface treatment of metals and plastics**
12 01 01	Ferrous metal filing and turnings
12 01 02	Ferrous metal dust and particles
12 01 03	Non-ferrous metal filings and turnings
12 01 04	Non-ferrous metal dust and particles
15	**WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED**
15 01	**Packaging (including separately collected municipal waste)**
15 01 01	Paper and cardboard packaging
15 01 02	Plastic packaging
15 01 03	Wooden packaging

Table S2.2 Permitted waste types and quantities for disposal by non-hazardous landfill	
Waste code	**Description**
15 01 04	Metallic packaging
15 01 05	Composite packaging
15 01 06	Mixed packaging
15 01 07	Glass packaging
15 01 09	Textile packaging
15 02	**Absorbents, filter materials, wiping cloths and protective clothing**
15 02 03	Absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02
16	**WASTES NOT OTHERWISE SPECIFIED IN THE LIST**
16 01	**End-of-life vehicles from different means of transport (including off-road machinery)**
16 01 03	End-of-life tyres
16 01 06	End-of-life vehicles, containing neither liquids nor other hazardous components
16 01 12	Brake pads other than those mentioned in 16 01 11
16 01 16	Tanks for liquefied gas
16 01 17	Ferrous metal
16 01 18	Non-ferrous metal
16 01 19	Plastic
16 01 20	Glass
16 01 22	Components not otherwise specified
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	Mixture of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 02	**wood, glass and plastics**
17 02 01	Wood
17 02 02	Glass
17 02 03	Plastic
17 03	**Bituminous mixtures and tarred products**
17 03 02	Bituminous mixtures other than those mentioned in 17 03 01
17 04	**Metals (including their alloys)**
17 04 01	Copper, bronze, brass
17 04 02	Aluminium
17 04 03	Lead
17 04 04	Zinc
17 04 05	Iron and Steel
17 04 06	Tin
17 04 07	Mixed metals
17 04 11	Cables other than those mentioned in 17 04 10
17 05	**Soil stones and dredging soils**
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 material other than those mentioned in 17 06 01 and 17 06 03

Table S2.2 Permitted waste types and quantities for disposal by non-hazardous landfill	
Waste code	**Description**
17 09	**Other construction materials and demolition wastes**
17 09 04	Mixed construction and demolition wastes other than those mentioned in 17 09 01
18	**Wastes from human or animal healthcare and/or related research (except kitchen and resteraunt waste not arsing from immediate healthcare)**
18 01	**Wastes from natal care, diagnostics, 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 dressings, plaster casts, linen, disposable clothing, diapers
18 01 07	Chemicals other than those mentioned in 18 01 06
18 02	**Wastes from research, diagnostics, 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
18 02 06	Chemicals other than those mentioned in 18 02 05
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 the incineration or pyrolysis of waste**
19 01 02	Ferrous metals removed from bottom ash
19 01 12	Bottom ash and slag other than those mentioned in 19 01 11
19 01 18	Pyrolysis wastes other than those mentioned in 19 01 17
19 01 19	Sand and fluidised beds
19 02	**Wastes from physico/chemical treatments of waste (including dechromation, 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 09 09
19 03	**Stabilised/solidified waste**
19 03 05	Stabilised wastes other than those mentioned in 19 03 04
19 03 07	Stabilised wastes other than those mentioned in 19 03 06
19 04	**Vitrified wastes 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 of animal and vegetable wastes
19 05 03	Off-specification compost
19 08	**Wastes from waste water treatment of solid wastes**
19 08 01	Screenings
19 08 02	Waste from de-sanding
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 waste 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

Table S2.2 Permitted waste types and quantities for disposal by non-hazardous landfill	
Waste code	**Description**
19 09 05	Saturated or spent ion exchange resins
19 09 06	Solutions and sludges from regeneration of ion exchanges
19 10	**Wastes from shredding of metal-containing wastes**
19 10 01	Iron and Steel waste
19 10 02	Non-ferrous waste
19 10 04	Fluff-light fraction 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 16	Sludges from on-site effluent treatment other than those mentioned in 19 11 05
19 12	**Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**
19 12 01	Paper and cardboard
19 12 02	Ferrous metal
19 12 03	Non-ferrous metal
19 12 04	Plastic and rubber
19 12 05	Glass
19 12 07	Wood other than those mentioned in 19 12 06
19 12 08	Textiles
19 12 09	Minerals (for example sand, stone)
19 12 10	Combustible waste (refuse derived fuel)
19 12 12	Other wastes (including mixture of materials) from mechanical treatment of waste 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	Sludge's from soil remediation other than those mentioned in 19 13 03
19 13 06	Sludge's from groundwater remediation other than those mentioned in 19 03 05
20	**MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS**
20 01	**Separately collected fraction (except 15 01)**
20 01 01	Paper and cardboard
20 01 02	Glass
20 01 08	Biodegradable kitchen and canteen waste
20 01 10	Clothes
20 01 11	Textiles
20 01 25	Edible oil and fat
20 01 28	Paint, inks, adhesives and resins other than those mentioned in 20 01 27
20 01 30	Detergents other than those mentioned in 20 01 29
20 01 32	Medicines other than those mentioned in 20 01 31
20 01 34	Batteries and accumulators other than those mentioned in 20 01 33
20 01 36	Discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35
20 01 38	Wood other than those mentioned in 20 01 37
20 01 39	Plastics
20 01 40	Metals
20 01 41	Waste from chimney sweep
20 02	**Garden and park waste (including cemetery waste)**
20 02 01	Biodegradable waste

Table S2.2 Permitted waste types and quantities for disposal by non-hazardous landfill	
Waste code	**Description**
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 wastes

Table S2.3 Permitted waste types and quantities for disposal in the asbestos cell	
	Description
17	**CONSTRUCTION AND DEMOLITION WASTE WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)**
17 06	**Insulation materials and asbestos-containing construction materials**
17 06 01*	Insulation materials containing asbestos
17 06 05*	Construction material containing asbestos

* - denotes hazardous waste

Schedule 3 – Emissions and monitoring

Table S3.1 Leachate level limits and monitoring requirements

Monitoring point ref. & location	Limit (including unit)	Monitoring frequency	Monitoring standard or method
All leachate abstraction points and all additional replacement abstraction points	2m above cell base	Monthly	Unless otherwise agreed in writing with Natural Resources Wales, monitoring methods used shall be in accordance with Environment Agency document 'Guidance on monitoring of landfill leachate, groundwater and surface water' (LFTGN02).

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements

Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
Cell 3A in Area 2. Identified on site drawing no – 14739/155/001	Surface Water Lagoon (prior to discharge)	Suspended Solids	100 mg/l	Spot Sample	Monthly	As per LFTGN02 issued February 2003 'Guidance on Monitoring of Landfill leachate, groundwater and surface water
		COD	120 mg/l			
		Ammoniacal Nitrogen	5 mg/l			
		pH	Min. 6 pH units Max. 9 pH units			
		Asbestos Fibres	None Detectable			
		Oil and Grease	None Visible	Observation		

Table S3.3 Trigger levels for emissions to groundwater and monitoring requirements					
Emission point ref. & location	**Parameter**	**Limit (incl. Unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method**
GW06_13 (Note1)	Arsenic	50 µg/l	Spot sample	Quarterly	As per LFTGN02 (issued February 2003 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water'. H1 - Technical Annex to Annex (j): Hydrogeological Risk Assessments for Landfills and the Derivation of Groundwater Control Levels and Compliance Limits, v2.0, April 2010.
	Ammoniacal Nitrogen	35 mg/l			
	Benzene	2 µg/l			
	Naphthalene	5 µg/l			
	Nickel	14 µg/l			
	Potassium	110 µg/l			
	Xylene	3 µg/l			
GW06_14A (Note1)	Arsenic	25 µg/l	Spot sample	Quarterly	
	Ammoniacal Nitrogen	60 mg/l			
	Benzene	2 µg/l			
	Naphthalene	5 µg/l			
	Nickel	14 µg/l			
	Potassium	180 mg/l			
	Xylene	3 µg/l			
GW03_09 (Note1)	Arsenic	35 µg/l	Spot sample	Quarterly	
	Ammoniacal Nitrogen	35 mg/l			
	Benzene	2 µg/l			
	Naphthalene	5 µg/l			
	Nickel	10 µg/l			
	Potassium	180 mg/l			
	Xylene	3 µg/l			
GW06_34 (Note1)	Arsenic	65 µg/l	Spot sample	Quarterly	
	Ammoniacal Nitrogen	35 mg/l			
	Benzene	2 µg/l			
	Naphthalene	5 µg/l			
	Nickel	14 µg/l			
	Potassium	350 mg/l			
	Xylene	3 µg/l			
GW06_36 (Note1)	Arsenic	30 µg/l	Spot sample	Quarterly	
	Ammoniacal Nitrogen	23 mg/l			
	Benzene	2 µg/l			
	Naphthalene	5 µg/l			
	Nickel	10 µg/l			
	Potassium	110 mg/l			
	Xylene	3 µg/l			
GW06_37 (Note1)	Arsenic	60 µg/l	Spot sample	Quarterly	
	Ammoniacal Nitrogen	35 mg/l			
	Benzene	2 µg/l			
	Naphthalene	5 µg/l			
	Nickel	10 µg/l			
	Potassium	110 mg/l			

	Xylene	3 µg/l			
GW06_39 (Note1)	Arsenic	50 µg/l	Spot sample	Quarterly	
	Ammoniacal Nitrogen	23 mg/l			
	Benzene	2 µg/l			
	Naphthalene	5 µg/l			
	Nickel	30 µg/l			
	Potassium	110 mg/l			
	Xylene	3 µg/l			
GW07_40 (Note1)	Arsenic	35 µg/l	Spot sample	Quarterly	As per LFTGN02 (issued February 2003 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water'. H1 - Technical Annex to Annex (j): Hydrogeological Risk Assessments for Landfills and the Derivation of Groundwater Control Levels and Compliance Limits, v2.0, April 2010.
	Ammoniacal Nitrogen	23 mg/l			
	Benzene	2 µg/l			
	Naphthalene	5 µg/l			
	Nickel	10 µg/l			
	Potassium	45 mg/l			
	Xylene	3 µg/l			
GW09_31 (Note1)	Arsenic	80 µg/l	Spot sample	Quarterly	
	Ammoniacal Nitrogen	50 mg/l			
	Benzene	13 µg/l			
	Naphthalene	5 µg/l			
	Nickel	10 µg/l			
	Potassium	110 mg/l			
	Xylene	3 µg/l			
GW09_32 (Note1)	Arsenic	30 µg/l	Spot sample	Quarterly	
	Ammoniacal Nitrogen	50 mg/l			
	Benzene	3 µg/l			
	Naphthalene	5 µg/l			
	Nickel	10 µg/l			
	Potassium	180 mg/l			
	Xylene	3 µg/l			
GW09_35 (Note1)	Arsenic	50 µg/l	Spot sample	Quarterly	
	Ammoniacal Nitrogen	35 mg/l			
	Benzene	2 µg/l			
	Naphthalene	5 µg/l			
	Nickel	10 µg/l			
	Potassium	110 mg/l			
	Xylene	3 µg/l			
Note 1: All monitoring points as shown on Revised Figure 2, Document Design of a Site Protection and Monitoring Programme (SPMP)					

Table S3.4 Landfill gas in external monitoring boreholes – limits and monitoring requirements				
Emission point ref. & location	**Parameter**	**Limit (incl. Unit) (Note 2)**	**Monitoring frequency**	**Monitoring standard or method**
GP03/06 (Note 1)	Methane	1.0 %v/v	Quarterly	As per LFTGN 03 issued September 2004 'Guidance on the management of landfill gases.
	Carbon Dioxide	6.1 %v/v		
GP06/08A (Note 1)	Methane	1.0 %v/v		
	Carbon Dioxide	2.4 %v/v		
GP05/14 (Note 1)	Methane	1.0 %v/v		
	Carbon Dioxide	2.2 %v/v		
GP05/15 (Note 1)	Methane	1.0 %v/v		
	Carbon Dioxide	10.4 %v/v		
GP05/16 (Note 1)	Methane	1.0 %v/v		
	Carbon Dioxide	7.7 %v/v		
GP05/17 (Note 1)	Methane	1.0 %v/v		
	Carbon Dioxide	13.5 %v/v		
GP05/18 (Note 1)	Methane	1.0 %v/v		
	Carbon Dioxide	19 %v/v		
GP05/20 (Note 1)	Methane	1.5 %v/v		
	Carbon Dioxide	No limit		
GP05/21 (Note 1)	Methane	1.5 %v/v		
	Carbon Dioxide	No limit		
GP05/22 (Note 1)	Methane	1.0 %v/v		
	Carbon Dioxide	8.3 %v/v		
GP12/23 (Note 1)	Methane	1.0 %v/v		
	Carbon Dioxide	5.5 %v/v		
GP12/26, GP12/27 GP06/24 (Note 1)	Methane	No limit		
	Carbon Dioxide	No limit		
Note 1: Monitoring points as shown on revised figure 2, Document design of a site protection and monitoring programme (SPMP)				

Table S3.5 Landfill gas from capped surfaces – limits and monitoring requirements				
Emission point ref. & location	**Parameter**	**Limit (incl. Unit)**	**Monitoring frequency**	**Monitoring standard or method**
Permanently capped zone	Average methane flux and total methane emission	Average zone emission rate of 0.001 $mg/m^2/second$	Annually	As per LFTGN 07 issued September 2004 'Guidance on monitoring landfill gas surface emissions'*
Temporarily capped zone	Average methane flux and total methane emission	Average zone emission rate of 0.1 $mg/m^2/second$		

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 with an FID 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 S3.6 Leachate – other monitoring requirements				
Emission point ref. & location	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specs.**
All leachate abstraction points and all additional and replacement abstraction points	Electrical conductivity, Temperature, pH, Total alkalinity, Total hardness, Ionic Balance, COD, BOD, TON, TOC, Ammoniacal-N, Chloride, Nitrate, Nitrite, Phosphate, Sulphate, Sulphide, Arsenic, Boron, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Potassium, selenium, Zinc, Benzene, Naphthalene, Phenol, Cyanide, TPH Screen (c10-c40, C40)	Quarterly	As per LFTGN02 issued February 2003 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water'. H1 – Technical Annex to Annex (J): Hydrogeological Risk Assessment for Landfills and the Derivation of Groundwater Control Levels and Compliance Limits, v2.0, April 2010	-
	Hazardous Substances	Annually		
	Leachate Volume	Monthly		
	Depth to monitoring point (m)	Annually		

Table S3.7 Groundwater – other monitoring requirements				
Emission point ref. & location	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specs.**
Boreholes GW09_31, GW03_09, GW12_33, GW06_34, GW12_30, GW09_32, GW07_40, GW06_13, GW06_14A, GW09_35, GW06_36, GW06_37, GW12_38	Electrical conductivity, Temperature, pH, Total alkalinity, Total hardness, Ionic Balance, COD, BOD, TON, TOC, Ammoniacal-N, Chloride, Nitrate, Nitrite, Phosphate, Sulphate, Sulphide, Arsenic, Boron, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Potassium, selenium, Zinc, Benzene, Naphthalene, Phenol, Cyanide, TPH Screen (c10-c40, C40)	Quarterly	As per LFTGN02 issued February 2003 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water'. H1 - Technical Annex to Annex (j): Hydrogeological Risk Assessments for Landfills and the Derivation of Groundwater Control Levels and Compliance Limits, v2.0, April 2010.	-
Boreholes GW09_31, GW03_09, GW12_33, GW06_34, GW12_30, GW09_32, GW07_40, GW06_13, GW06_14A, GW09_35, GW06_36, GW06_37, GW12_38	Hazardous Substances	Annually	As per Appendix 6 of EA Guidance document LFTGN01	
Boreholes GW09_31, GW03_09, GW12_33, GW06_34, GW12_30, GW09_32, GW07_40, GW06_13, GW06_14A, GW09_35, GW06_36, GW06_37, GW12_38	Groundwater Levels (mAOD)	Monthly	As per LFTGN02 issued February 2003 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water'.	
	Depth to monitoring point base (m)	Annually		

Table S3.8 Particulate matter in ambient air – limits and monitoring requirements					
Emission point ref. & location	**Parameter**	**Limit (including unit)**	**Reference Period**	**Monitoring frequency**	**Monitoring standard or method**
Cell 3A in Area 2. Identified on site drawing no – 14739/155/001	PM^{10}	40µ/m^3 - annual mean. 50µ/m^3 - 24 hour mean, not to be exceeded >35 times per year.	8 hours During asbestos disposal operations	Six monthly	As per M17 issued July 2013 'Monitoring of Particulate Matter in ambient air around waste facilities'.
	Deposited particulate	200mg/$m^2$$day^{-1}$			
	Asbestos fibres	0.001 asbestos fibres/mL			

Table S3.9 Asbestos Cell Stability Monitoring Requirements				
Emission point ref. & location	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
Asbestos cell separation bund inclinometers 1, 2 and 3	Deformation behaviour of the separation bund measured at each inclinometer.	Prior to commencement and upon completion of each separation bund lift and at 6 monthly intervals.	Separation bund inclination and topography assessment. Plan and cross-sectional drawings of the separation wall to be included.	The three inclinometers in the separation wall will be equally distributed along the length of the separation wall. The inclinometers will be installed after the first 1-3 lifts of the separation wall, dependent on the starter length of pipe and thereafter be extended upwards. The inclinometer base will benefit suitable vertical location and protection measures in order to ensure that basal lining system is not compromised. The separation wall and inclinometers will be surveyed in. The separation wall will be constructed in lifts and each lift will be surveyed to outline its base and crest footprints.

Table S3.10 Process monitoring requirements				
Emission point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
5 Vibrating wire piezometers; • 2 x piezometer ~10m from outer edge of waste footprint • 2 x piezometer at Peak anticipated loading • 1 x piezometer equidistant between these points	Pore Water Pressure (PWP)	Annually		Vibrating wire piezometers with full uninterrupted cable length from piezometer located under the landfill to monitoring location outside the landfill footprint. The piezometers will be furnished with data loggers and readings reported in kPa, being reviewed annually.

Schedule 4 - Reporting

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

Table S4.1 Reporting of monitoring data

Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Leachate levels as required by condition 3.6.1	Monitoring points specified in Table S3.1	Every 3 months	From date of issue of variation
Groundwater parameters as required by condition 3.6.1	Monitoring points specified in Table S3.3	Every 3 months	From date of issue of variation
Landfill gas surface emission parameters as required by condition 3.6.1	Monitoring points specified in Table S3.5	Annually	From date of issue of variation
Landfill gas lateral migration parameters as required by condition 3.6.1	Monitoring points specified in Table S3.4	Every 3 months	From date of issue of variation
Other leachate monitoring parameters as required by condition 3.6.1 • Depth to monitoring point base • Hazardous Substances • Leachate Volume	Monitoring points specified in Table S3.6	Every 3 months Every 3 months Annually Every 3 months	From date of issue of variation
Other groundwater monitoring parameters as required by condition 3.6.1 • Depth to monitoring point base • Hazardous Substances • Groundwater levels (mAOD)	Monitoring points specified in Table S3.7	Every 3 months Annually Annually Every 3 months	From date of issue of variation
Emissions to water as required by condition 3.6.1	Monitoring points specified in Table S3.2	Every 3 months	From date of issue of variation
Particulate matter parameters as required by condition 3.6.1	Monitoring points specified in Table S3.8	Every 6 months	From date of issue of variation
Separation bund topography and separation bund inclination as required by condition 3.6.1	Monitoring points specified in Table S3.9	After each lift but in any case no longer than 6 months	From date of issue of variation
Process monitoring requirements as required by condition 3.6.1	Monitoring points specified in Table S3.10	Every 12 months	From date of issue of variation

Table S4.2: Annual production/treatment	
Parameter	**Units**
Leachate: Disposed of off-site Disposed of to any on-site effluent treatment plant Recirculated into the waste mass	Cubic meters/year
Surface water and/or groundwater: Disposed of off-site; Disposed of to any on-site effluent treatment plant	Cubic meters/year
Landfill Gas: Combustion in flares; Combustion in gas engines; Other methods of gas utilisation	Normalised cubic meters/year

Table S4.3 Performance parameters		
Parameter	**Frequency of assessment**	**Units**
Potable water use	Annually	Cubic meters
Energy usage (including leachate treatment)	Annually	MWh of electricity
Non-potable water use	Annually	Cubic meters

Table S4.4 Reporting forms		
Media/parameter	**Reporting format**	**Date of form**
Leachate	Form Leachate 1 and Leachate 2 or other form as agreed in writing by Natural Resources Wales	DD/MM/YY
Controlled Water	Form Water 1 or other form as agreed in writing by Natural Resources Wales	DD/MM/YY
Surface Water	Form Water 2 or other form as agreed in writing by Natural Resources Wales	DD/MM/YY
Groundwater	Form Groundwater 1 and Groundwater 2 or other form as agreed in writing by Natural Resources Wales	DD/MM/YY
Landfill Gas	Form LFG 1 or other form as agreed in writing by Natural Resources Wales	DD/MM/YY
Waste Return	Waste tonnage return form spreadsheet available from Natural Resources Wales	DD/MM/YY
Particulate Matter	Form Particulate 1 or other form as agreed in writing by Natural Resources Wales	DD/MM/YY
Landfill topographical surveys and interpretation	Reporting format to be agreed in writing with Natural Resources Wales	DD/MM/YY
Inclinometer readings of asbestos bund and separation bund	Reporting format to be agreed in writing with Natural Resources Wales	DD/MM/YY
Water usage	Form Water Usage 1 or other form as agreed in writing by Natural Resources Wales	DD/MM/YY
Energy Usage	Form Energy 1 or other form as agreed in writing by Natural Resources Wales	DD/MM/YY
Other Performance Indicators	Form Performance 1 or other form as agreed in writing by Natural Resources Wales	DD/MM/YY

Schedule 5 - Notification

These pages outline the information that the operator must provide.

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

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

Part A

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

(a) Notification requirements for any activity that gives rise to an incident or accident which significantly affects or may significantly affect the environment	
To be notified Immediately	
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 permit condition	
To be notified immediately	
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) In the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment:	
To be notified immediately	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B - to be submitted as soon as practicable

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

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 - Interpretation

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

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

"emissions to land" includes emissions to groundwater.

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

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

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

"MCERTS" means the Environment Agency's Monitoring Certification Scheme.

"year" means calendar year ending 31 December.

annually" means once every year.

"authorised officer" means any person authorised by Natural Resources Wales under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

"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.

"Cell layout drawing" means:

(a) A drawing or drawings of the proposed new cell that illustrate(s) in sufficient detail:

  i. the location of the new cell on the site;

  ii. the proposed level (Above Ordnance Datum) of the base of the excavation;

  iii. the proposed finished levels of all containment and leachate drainage layers;

  iv. the positions of leachate management infrastructure; and

  v. the positions of landfill gas infrastructure (if appropriate).

(b) A detailed written explanation of any minor design changes from the most recently approved cell that result from the new cell layout. This would include, for example:

  i. changes to slope length and gradient within the cell;

  ii. new leachate or landfill gas infrastructure construction design;

  iii. slope stability issues such as new basal excavation level; and/or

  iv. depth of waste.

"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.

"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;
- lining within the installation.

within the site.

"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.

"LFTGN 07" means Environment Agency Guidance on monitoring landfill gas surface emissions.

"LFTGN 08" means Environment Agency Guidance for monitoring landfill gas engines.

"Medicinal product" means any medicine licensed by the Medicines and Healthcare products Regulatory Agency (MHRA) of their predecessors under the Medicines Act 1968, section 130.

"M2" means Environment Agency Guidance Monitoring of stack emissions to air.

"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.

"Pests" means Birds, Vermin and Insects.

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

"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 EP 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 EP Regulations.

"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, as appropriate, and in relation to hazardous waste, includes the asterisk.

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.

Schedule 7 – Site plan

END OF PERMIT