Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

FCC Waste Services (UK) Limited

Pwllfawatkin Landfill Site
Rhyd y Fro
Pontardawe
Swansea
West Glamorgan
SA8 4RX

Variation application number

EPR/BU8819IV/V013

Permit number

EPR/BU8819IV

Pwllfawatkin Landfill Site
Permit number EPR/BU8819IV

Introductory note

This introductory note does not form a part of the permit

The main features of the permit are as follows.

Pwllfawatkin Landfill is located in Neath Porth Talbot, 15km north east of Swansea and 5km north west of Pontardawe (at National Gird Reference SN 269817 208799). The landfill has been active since the 1970s.

The landfill is situated within the Upper Clydach Valley. The Upper Clydach River flows north to south close to the eastern boundary of the site. The valley floor is at an elevation of approximately 160m AOD.

Land use in the vicinity is mainly agricultural and woodland, with a few residential properties surrounding the site.

The landfill is formed of 3 former coal spoil tips of the former Abernant Colliery and occupies an area of approximately 25 hectares.

The 3 tips ("891", "890" and "871") are split into Phase 1 and 2. Phase 1 consists of Tip 871, which is located to the south of the Baran Road which intercepts the site. This tip has been restored but is used as a source of engineering material for Tip 890.

Phase 2 consists of Tip 891 and Tip 890, located north of Baran Road. Tip 891 has been restored. Tip 890 is the active landfill for non-hazardous waste at the site. This tip is currently divided into further phases (1-4), with each phase being divided into numerous sub-cells.

A landfill gas control system is in place throughout the whole site, collecting gas and combusting it in a 1064 KW landfill gas engine located along the south-eastern boundary of the site.

Leachate is collected and stored prior to disposal off-site.

Uncontaminated surface water is discharged into the Upper Clydach River via 2 discharge points.

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

Status Log of permit		
Description	**Date**	**Comments**
Application BU8819IV (EPR/BU8819IV/A001)	Received 05/12/03	
Request for additional information relating to the Application	Request dated 19/12/03	Response received 22/12/03.
Request to extend period of determination regarding Commercial in Confidence	Request dated 13/01/04	Response received 18/01/04.
Request for information relating to the Hydrogeological and Landfill Gas Risk Assessments (HRA & GRA)	Request dated 10/05/04	Response to LFGRA questions dated 28/05/04. Response to HRA questions received 14/06/04.
Requests for additional information on emissions to surface water	Requests dated 20/05/04 & 03/06/04	Responses received on 26/05/04 & 14/06/04.

Request to submit EPOPRA Version 2	Request dated 16/06/04	EPOPRA Version 2 received on 22/06/04.
Request to extend period of determination	Request dated 17/06/04	Response dated 21/06/04.
Request for additional information relating to the Groundwater Risk Assessment	Request dated 15/07/04	Response received 09/09/04.
Schedule 4 Notice requesting further information on the Hydrogeological Risk Assessment	Notice dated 06/08/04	Response received 09/09/04.
Request to extend period of determination	Request dated 06/08/04	Response dated 09/08/04.
Letter regarding response to Schedule 4 notice	Request dated 08/11/04	Responses dated 23/11/04 via email & 24/01/05 via letter.
Letter regarding various issues	Letter dated 07/12/04	Response dated 31/12/04.
Request to extend period of determination	Request dated 14/12/04	Response dated 04/01/05.
Revised Landfill Gas Risk Assessment	Report dated January 05	
Letters relating to Landfill Gas Risk Assessment	Letters dated 24/01/04 & 02/02/05	
Letter relating to groundwater sampling & analysis	Letter dated 02/02/05	
Letter relating to groundwater and leachate issues	Letter dated 18/03/05	
Letter regarding RGN3 issues	Request dated 22/04/05	Response dated 11/05/05.
Letter regarding HRA information	Request dated 01/06/05	Response dated 16/06/05.
Letter regarding RGN3 status	Request dated 02/08/05	Response dated 01/09/05.
Request to extend period of determination	Request dated 13/10/05	
Permit determined BU8819IV (EPR/BU8819IV/A001	09/11/05	
Application for Permit Variation QP3332UX (EPR/BU8819IV/V002)	Received 02/04/07	
Variation Notice QP3332UX (EPR/BU8819IV002)	Issued 18/10/07	
Variation notice YP3333MK (EPR/BU8819IV/V003)	Issued 28/03/08	
Application for variation SP3531XZ (EPR/BU8819/V004)	Received 10/10/07	
Permit varied SP3531XZ (EPR/BU8819IV/V004)	30/05/08	
Variation application EPR/BU8819IV/V005	Received 25/08/09	
Variation determined EPR/BU8819IV/V005	07/09/09	
Variation determined EPR/BU8819IV/V006	28/03/11	

Agency Initiated Variation Application EPR/BU8819IV/V007 (PAS Reference LP3135FC)	13/05/11	
Agency Initiated Variation Determined EPR/BU8819IV/V007	24/05/11	
Agency Initiated Variation Application EPR/BU8819IV/V008 (PAS Reference TP3035FA)	13/05/11	
Agency Initiated Variation Determined EPR/BU8819IV/V008	01/06/11	
Variation Application EPR/BU8819IV/V009	21/08/12	Application to add a new waste operation for the processing of road sweeping waste. Variation also changes the Operators name.
Variation Application EPR/BU8819IV/V009	19/11/12	Variation issued.
Agency variation determined EPR/BU8819IV/V010	27/11/12	Amend error in site plan.
Agency variation determined EPR/BU8819IV/V011	12/06/13	Agency variation to implement the changes introduced by IED.
Variation Application EPR/BU8819IV/V012 (PAN-019015)	Duly made 13/03/23	Substantial Variation to amend groundwater limits and monitoring requirements, amend leachate limits and monitoring requirements, add a new surface water discharge point, remove perimeter gas monitoring requirements for CO_2 and consolidate the permit into a modern style permit.
Additional information received following Schedule 5 Notice dated 17/05/2023	05/06/2023	Revised pre-settlement contours drawing and further information regarding how the contours had been derived.
	11/07/2023	
Additional information received following informal information request sent on 24/05/2023	07/06/2023	Revised Hydrogeological Risk Assessment Review.
Additional information received following Schedule 5 Notice dated 28/07/2023	11/08/2023	Further evidence to support the proposed ammoniacal nitrogen groundwater limits.
	12/09/2023	Withdrawal of aspects of application relating to Schedule 5 Notice.
Variation Determined EPR/BU8819IV/V012	19/12/2023	Part refusal issued.
Variation Application EPR/BU8819IV/V013 (PAN-023949)	23/11/2023	Variation to add waste recovery activity and additional waste type as permitted waste for use in restoration.
information received following informal information request sent on 20/06/2024	16/07/2024	Withdrawal of aspects of application relating to ammoniacal nitrogen limits and waste types to be added to permit
Additional information received following informal information request sent on 06/08/2024	06/08/2024	Request for copy of updated Waste Recovery Plan with copy of Planning Consent

Additional information received following Schedule 5 Notice dated 29/08/2024	09/10/2024	Additional justification for approach to stability risk assessment and an updated Waste Recovery Plan
Additional information received following Schedule 5 Notice dated 08/11/2024	09/12/2024	Updated list of waste codes for recovery provided and an updated Waste Recovery Plan
Variation Determined EPR/BU8819IV/V013	13/01/2025	Variation and Consolidated Permit Issued to FCC Waste Services (UK) Limited

Superseded or Partially Superseded Licences/Authorisations/Consents relating to this installation			
Holder	**Reference Number**	**Date of Issue**	**Fully or Partially Superseded**
Waste Management Licence	EAWML 34149	22/08/97	Fully superseded
Consent to Discharge to Upper Clydach River from Pond D (settled)	BP0258101	30/11/96	Fully superseded
Consent to Discharge to Upper Clydach River from Pond D (storm water)	BP0264102	28/01/97	Fully superseded
Consent to Discharge to Upper Clydach River from Pond C (settled)	BP0258001	30/11/96	Fully superseded
Consent to Discharge to Upper Clydach River from Pond C (storm water)	BP0264101	28/01/97	Fully superseded

End of introductory note.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number
EPR/BU8819IV

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/BU8819IV/V013 authorising

FCC Waste Services (UK) Limited ("the operator")

whose registered office is

3 Sidings Court
White Rose Way
Doncaster
England
DN4 5NU

company registration number **00988844**

to operate a regulated facility at

Pwllfawatkin Landfill Site
Rhyd y Fro
Pontardawe
Swansea
West Glamorgan
SA8 4RX

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

Signed	Date
Holly Noble	**13/01/2025**

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, closure 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 shall be as set out in the Deed of Performance dated 01 November 2017 between the Operator and Natural Resources Wales or other financial provision as subsequently agreed in writing with Natural Resources Wales, 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.

1.3 Energy efficiency

1.3.1 For the following activities referenced in schedule 1, table S1.1, A1 to A6, the operator shall:

(a) take appropriate measures to ensure that energy is used efficiently in the activities;

(b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and

(c) implement any appropriate measures identified by a review.

1.4 Efficient use of raw materials

1.4.1 For the following activities referenced in schedule 1, table S1.1, A1 to A6. The operator shall:

(a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;

(b) maintain records of raw materials and water used in the activities;

(c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and

(d) take any further appropriate measures identified by a review.

1.5 Avoidance, recovery and disposal of wastes produced by the activities

1.5.1 The operator shall:

(a) take appropriate measures to ensure that waste produced by the activities is avoided or reduced, or where waste is produced it is recovered wherever practicable or otherwise disposed of in a manner which minimises its impact on the environment;

(b) review and record at least every four years whether changes to those measures should be made; and

(c) take any further appropriate measures identified by a review.

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 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.

2.3.2 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 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.

2.3.3 The operator shall not use leachate for the purpose of dust suppression.

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 Pre-operational conditions

2.5.1 The operations specified in schedule 1 table S1.4 shall not commence until the measures specified in that table have been completed.

2.6 Landfill Engineering

2.6.1 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.

2.6.2 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.

2.6.3 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.

2.6.4 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.

2.6.5 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.

2.6.6 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.

2.6.7 The operator shall submit a CQA Validation Report within four weeks of the completion of the construction of the relevant landfill infrastructure, or other time period agreed in writing with Natural Resources Wales.

2.6.8 Where pollution controls are immediately necessary to prevent an incident or accident, then conditions 2.6.5 and 2.6.6 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.

2.6.9 For the purposes of conditions 2.6.1, 2.6.2, 2.6.4 and 2.6.5, 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.

2.6.10 Where Natural Resources Wales has required further information under condition 2.6.9(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.

2.7 Waste acceptance

2.7.1 Wastes shall only be accepted for disposal if:

(a) they are listed in schedule 2, table S2.1;

(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 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) 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.

2.7.2 Wastes shall only be accepted for recovery if:

(a) It is of a type listed in schedule 2 table S2.3; and

(b) they are deposited in accordance with the Waste Recovery Plan dated xx/xx/xxxx or in accordance with other plans subsequently agreed in writing with Natural Resources Wales

2.7.3 For the following activity referenced in schedule 1, table S1.1, A8, waste shall only be accepted for treatment if:

(a) it is of a type and quantity listed in schedule 2 table S2.2; and

(b) it conforms to the description in the documentation supplied by the producer and holder.

2.7.4 Wastes shall only be accepted for restoration where:

(a) they are listed in schedule 2, table S2.3; and

(b) they are accepted in accordance with a restoration plan approved in writing by Natural Resources Wales.

2.7.5 Stable non-reactive hazardous waste shall not be deposited in cells used or intended to be used for the disposal of biodegradable non-hazardous waste. Stable non-reactive hazardous waste and non-hazardous waste which is landfilled in the same cell must meet the relevant waste acceptance criteria.

2.7.6 The operator shall:

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

(b) be satisfied that the waste conforms to the requirements of condition 2.7.1.

2.7.7 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.

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

2.7.9 The total quantity of waste that shall be deposited in the landfill shall be limited by the pre-settlement levels shown on drawing WR7816/12/04 dated 02/11/2021 (revised 10/07/2023).

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

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

2.8 Leachate levels

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

2.9 Closure and aftercare

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

2.10 Landfill gas management

2.10.1 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.

2.10.2 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 use appropriate measures to flare or treat the gas in accordance with an approved landfill gas management plan.

2.10.3 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 The limits in Schedule 3 shall not be exceeded.

3.1.2 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 and S3.3

3.1.3 The limits given in Table S3.2 shall not be exceeded, save that compliance with an emission limit in that table shall include incorporation of the uncertainty allowance stated in Environment Agency guidance LFTGN 05 and LFTGN 08.

3.1.4 The operator shall prevent the input of any hazardous substances from the activities into groundwater.

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

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

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

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.

3.4 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.

3.5 Monitoring

3.5.1 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 S3.9;

(b) Point source emissions specified in tables S3.2 and S3.3;

(c) Groundwater specified in tables S3.4 and S3.7;

(d) Landfill gas specified in tables S3.5, S3.6 and S3.8; and

(e) Surface water specified in table S3.10.

3.5.2 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.

3.5.3 A topographical survey of the site referenced to ordnance datum shall be carried out and shall be used to produce a plan of a scale adequate to show the surveyed features of the site:

(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.

3.6 Pests

3.6.1 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.

3.6.2 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.

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) topographical surveys and;

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

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 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 ('the annual report') shall be submitted to Natural Resources Wales by 31st January each year or such other date as may be agreed in writing by Natural Resources Wales, with the exception of 4.2.2(c) that must be provided by the end of February 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. The review will include written descriptions of the improvements made to operational performance during the year, action plans developed and planned improvements for the coming year;

(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 3.5.3 other than those submitted as part of a CQA validation report;

(e) 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;

(f) an assessment of the settlement behaviour 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 metres) derived from the pre-settlement contours and the most recent topographical survey;

(h) a plan(s) ('the monitoring and extraction point plan – MEPP') showing the locations of existing and any new leachate and landfill gas extraction and monitoring points.

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) using the forms specified in schedule 4 table S4.4 or other reporting format as agreed in writing with Natural Resources Wales; 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 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.

In any other case:

(c) the death of any of the named operators (where the operator consists of more than one named individual);

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

(e) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

4.3.4 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	**WFD Annex I and II operations (where applicable)**	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity**	**Limits of specified activity**
A1	D5 – Specially engineered landfill	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 Waste types as specified in Table S2.1 as an integral part of landfilling.
Directly Associated Activities				
A2	R1 – use principally as a fuel to generate energy	Burning of waste as a fuel	Combustion of landfill gas for the purpose of electricity generation	Landfill gas arising from the landfill.
A3	N/A	Leachate management	Storage and handling of leachate prior to disposal off-site.	Leachate arising from the landfill.
A4	N/A	Landfill gas flaring	Flaring of landfill gas for disposal in a high temperature enclosed flare.	Landfill gas arising from the landfill.
A5	D6 – release to water body except seas / oceans	Water discharges to controlled waters	Discharges of site drainage from the landfill	From surface water management system to point of entry to controlled waters.
A6	N/A	Fuel storage	Storage of fuel for operation of plant and equipment.	Fuel storage tank(s).

Table S1.1 Activities				
Activity reference	**WFD Annex I and II operations (where applicable)**	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity**	**Limits of specified activity**
Waste Operations				
A7	R13 - Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	N/A - Waste storage	Secure storage of wastes.	Waste types and quantities as specified in Table S2.2. Maximum on site storage capacity of 2000 tonnes. Within area edged in red on the site plan shown in Schedule 7. In accordance with condition 4.3.4 the operator may change the location of the waste treatment area edged in red within the area edged in green by submitting a revised site plan to the Natural Resources Wales for approval. Treatment and storage will only be undertaken within an engineered landfill cell (before the construction of a capping system) and in agreement with Natural Resources Wales
A8	R3 -Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes). R5 - Recycling/reclamation of other inorganic compounds	N/A - Waste Treatment	Physical treatment of non-hazardous dewatered road sweeping waste for use as a soil enhancer. The treatment will consist of sorting, screening and blending of road sweepings and soil.	Waste types and quantities as specified in Table S2.2 . Maximum treatment capacity of 100 tonnes per day. Within area edged in red on the site plan shown in Schedule 7. In accordance with condition 4.3.4 the operator may change the location of the waste treatment area edged in red within the area edged in green by submitting a revised site plan to the Natural Resources Wales for approval. Treatment and storage will only be undertaken within an engineered landfill cell (before the construction of a capping system) and in agreement with Natural Resources Wales

Table S1.1 Activities				
Activity reference	**WFD Annex I and II operations (where applicable)**	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity**	**Limits of specified activity**
A9	R5 - Recycling/reclamation of other inorganic materials	N/A – Waste Recovery	Deposit of waste for recovery	The total quantity of waste deposited for recovery shall not exceed 89,884 m3. In any event the total quantity of waste used shall not exceed the amount needed to complete the recovery operation to the final levels in the approved waste recovery plan received 09/12/2024 Only the waste types specified in table S2.3 that are specified in the approved Waste Recovery Plan shall be accepted. Such wastes shall only be used as specified in the approved waste recovery plan. No waste shall be deposited into a water body or sub-water table.

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, excluding: page 71, and the answers to the following questions: 2.2.2, 2.3.9, 2.3.10, 2.3.11, 2.3.13, 2.3.34, 2.3.35, 2.3.38, 2.3.39, 2.3.46, 2.3.47, 2.3.51, 2.3.54, 2.3.71, 2.3.73, 2.3.74, 2.4.6, 2.4.7 and 2.4.8	05/12/2003
Schedule 1 & letter relating to request dated 15 July 2004	All	09/09/2004
Landfill Gas Risk Assessment	MJCA letter, dated 24th January 2005 (reference: *WRG/PW/MS/2512/01*) and enclosed report “Revised Landfill Gas risk Assessment” (Reference WRG/PW/MS/2512/01 (Dated January 2005))	24/01/2005
Schedule 1 relating to RGN 3 issues	All	11/05/2005
Schedule 1 relating to RGN3 issues	All	16/06/2005

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Drawing No. WRG/PW/08-05 12383	All	August 2005
Drawing No. S2003/PW/PPP2 Revision B – revised installation boundary	All	08/11/2005
Site Protection and Monitoring Programme	All	June 2006
Meteorological Monitoring Plan v 01 December 2005	All	June 2006
Improvement Condition 10 submission - Additional groundwater monitoring points	WRG Report “Proposals for additional groundwater monitoring boreholes”	11/05/2006
WRG Letter from Mark Cheetham.	All	03/08/2006
Improvement Condition 5 submission Report for spacing of perimeter landfill gas boreholes dated 09 May 2006	WRG Report for spacing of perimeter landfill gas boreholes, dated 09 May 2006	19/05/2006
Report for review of particulate monitoring methods dated 11 May 2006	All	May 2006
Gas flare emissions monitoring	All	June 2006
Improvement Condition 9 submission: Air impact assessment report no 06529199	WRG Letter, dated 7th June 2006 (Reference: NJB530/pwll//L1.4), including the contents of all attachments	14/06/2006
Surface water management plan	All parts in relation to phase 2	June 2006
Improvement Condition 10 submission - Additional groundwater monitoring points	WRG letter	03/08/2006
Improvement Condition 14 - Stability calculations	WRG letter, dated 6th June 2006 (reference: *NJD534/Pwll/l1.4*) enclosing MJCA letter, dated 24th January 2005 (reference: *WRG/PW/AR/2504/01*)	January 2005

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Variation (QP3332UX) – Amendments to Groundwater Monitoring Locations	The response to question C.2 in Part C of the variation application.	02/04/2007
Improvement Condition 2 submission – Details of High Temperature Gas Flare	• WRG letter dated 25th June 2008 including the contents of all attachments (Technical Document - "Booster Station and high temperature combustion plants"); • Additional Information received (WRG letter, 23rd September 2008 including the contents of all attachments (Monitoring Schedule)).	26th June 2008 23rd September 2008
Improvement Condition 3 submission – Revised Leachate Management Plan	• WRG report: Pwllfawatkin Landfill Site - Leachate Management Plan - dated October 2010	15th October 2010
Variation application EPR/BU8819IV/V009	Sections 2.2.5, 2.2.6, 2.2.7 and 2.2.8 of the application document – Changes to existing activities. Sections 2.3.2 of the application document – Technical ability. Pert C2 – 3d: Management system. Sections 2.4.7, 2.4.8, 2.4.9, 2.4.10, 2.4.12 and 2.4.13 of the application document– Non-technical summary. Sections 4.1.3 and 4.1.4 of the application document – Types of waste accepted. Section 4.2.2 of the application document – runoff containment. Section 4.3 of the application document – Operating techniques.	21/08/12
Additional information received	E-mail dated 21/08/12 from Caulmert Limited, Reference 1442.12.FCC.AGS.SR.A0. Response to questions on guideline concentrations for soil use in restoration. Response to questions: 1. EWC Codes for capping, restoration and engineering. 2, 4 & 5. Details and location of storage prior to treatment. 3. Details of bunding and justification of assessment type	21/08/12
Additional information received	E-mail dated 29/08/12 from Caulmert Limited confirming the waste operation will be undertaken on areas where waste has been deposited with no capping.	29/10/12

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Improvement Condition 7 Submission HRA phase 1 and leachate compliance	Golder Associates Reports “Review of Phase 1 Hydrogeological Risk Assessment” dated April 2012 (report reference 12514290087.500/A.0) and “Hydraulic Containment Compliance” dated April 2012 (report reference: 12514290087.501/A.0) Golder Associates letter dated 18th April 2013 (submitted to NRW on the 7th August 2013). Letter Reference 1251429087.502/B.0	05/04/12 07/04/12
Improvement Condition 1 submission – Odour Management Plan	Pwllfawatkin Landfill site Odour Management plan version 1 (dated 18th March 2014) FCC updated odour management plan June 2018 FCC OMP updated January 20202	18/03/2014 Approved 19/03/18 (CAR 5513) 29/06/2018 07/02/2020
Improvement Condition 1 submission	GMP July 2014	02/6/14
Gas Management Plan	Gas Management Plan Updated FCC GMP submitted 19 Feb 2018	20/01/2014 28/02/18 Approved 26/03/2018 (CAR0033094)
Amended SWMP	Email received 1/8/14 SWMP and appendix. Pwllfawatkin Landfill site Surface water management and monitoring plan.	1 August 2014
Additional Information	Environment Management Plans – includes fire management plans	18/03/2018 and 08/01/2018
Variation EPR/BU8819IV/V012	Landfill Gas Management Plan dated May 2022 Drawing reference 479M408E “Environmental Monitoring Plan” dated 27/02/1023	01/03/2023

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Variation EPR/BU8819/V013	Control measures detailed in 'Amenity &Accidents Risk Assessment' (dated 09/08/2022, updated 22/11/2023) Dust Management Plan (dated 09/08/2022, updated 23/11/2023)	23/11/2023
	Waste Recovery Plan	09/11/2024

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
1a	The Operator shall submit to the Agency for approval a review of the Landfill Gas Risk Assessment rejected by the Agency on 21 March 2007 which shall include the following: • Revised numerical modelling using site specific trace gas data and representative local background concentrations; • Results of long term atmospheric dispersal for trace gases; • Measures to reduce surface emissions of bulk gas; • Modelling of short term surface emissions; and • Validation of site monitoring data against model predictions. Should the results of any monitoring differ significantly from those predicted in the model, the Operator shall carry out further risk screening and shall instigate mitigating measures. The Operator shall undertake any measures notified in writing by the Agency to the timescales indicated in the notification	Complete
1b	The Operator shall submit to the Agency for approval a revised Landfill Gas Management Plan. The plan shall include phased development plans for gas collection and shall be prepared in accordance with the Agency's guidance document LFTGN03 "Guidance on the Management of Landfill Gas". The Operator shall undertake any measures notified in writing by the Agency to the timescales indicated in the notification.	Complete
1c	The Operator shall submit to the Agency for approval a Landfill Gas Monitoring Plan. The Plan shall be prepared in accordance with Agency documents LFTGN03 "Guidance on the Management of Landfill Gas", LFTGN 04 "Guidance for Monitoring Trace Components in Landfill Gas" and LFTGN07 "Guidance for Monitoring Landfill Gas Surface Emissions". The Plan shall include the following information: ▪ The location, design and construction of sub-surface gas monitoring points within the waste mass;	Complete

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
	▪ Construction Quality Assurance of gas monitoring installations; ▪ Monitoring measurements and schedules, including frequencies and parameters; ▪ Monitoring techniques; ▪ Data management and reporting procedures; ▪ Inspection and maintenance; ▪ Trace component monitoring; ▪ Surface emission monitoring; ▪ Perimeter and receptor aerial emissions; ▪ Compliance limits; and ▪ Action plan incorporating emergency procedures and any necessary changes to management techniques. The Operator shall undertake any measures notified in writing by the Agency to the timescales indicated in the notification.	
2	The Operator shall submit to the Agency further information on the enclosed high temperature gas flare installed at the site, as requested by the Agency on 15 May 2007. The response shall be limited to the outstanding requirements of original IC 1.4.1.7 as detailed in the letter. The Operator shall undertake any measures notified in writing by the Agency by the date indicated in the notification.	Complete
3	The Operator shall submit to the Agency for approval further information for a revised leachate management plan, as requested by the Agency on 01 May 2007. The response shall be limited to the outstanding requirements of original IC 1.4.1.11 as detailed in the letter. The Operator shall undertake any measures notified in writing by the Agency by the date indicated in the notification.	Complete
4	The Operator shall submit to the Agency for approval a scheme indicating how groundwater is to be controlled during the operational phase of Phase 2, as requested by the Agency on 14 July 2007. The response shall be limited to the outstanding requirements of original IC 1.4.1.12 as detailed in the letter. The Operator shall undertake any measures notified in writing by the Agency by the date indicated in the notification.	Complete

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
5	The Operator shall submit to the Agency for approval revised leachate compliance levels for Phase 1. These limits shall be based on 0.5m below the minimum groundwater level, expressed as 'mAOD' and/or 'm above base'. Individual limits shall be set for monitoring points 41, 51, 74, 82, 91 and 101 as appropriate. Once approved, table S4.1 shall be read as if it contains the new limits. The monitoring frequency for leachate and groundwater level in tables S4.1, S4.8 and S4.10 shall also change from weekly to monthly	Complete
6	The Operator shall submit a report for Agency approval to review: Background levels of cadmium, tributyltin and naphthalene; and utilising historical monitoring data obtained from the existing groundwater boreholes installed around the site. From this data the Operator shall derive, for all down-gradient groundwater monitoring boreholes, specific groundwater control and trigger levels for selected parameters specified in table S4.4.	Complete
7	The Operator shall undertake a comprehensive review of the Phase 1 Hydrogeological Risk Assessment (as part of this review the original Conceptual Site Model (CSM) should also be re-examined to ensure that the model remains valid). The review should use the latest monitoring data available and be undertaken in accordance with the following guidance: • H1- Technical Annex to Annex (j): Hydrogeological risk assessments for landfills and the derivation of groundwater control levels and compliance limits; • Hydrogeological risk assessments for landfill four yearly review template. Following completion of the HRA review, the Operator shall use the findings to determine whether the facility can achieve the Phase 1 leachate (level) compliance limits (namely that leachate level can be maintained at least 0.5m below the minimum groundwater level surrounding the site). In the event that the operator's assessment determines that compliance using the existing leachate monitoring infrastructure is not possible the report shall outline alternative proposals for achieving compliance. The findings of this assessment shall be fully documented in a separate report. On completion a revised HRA (and if applicable an updated CSM) shall be submitted to the Agency for approval. The submission will also include the report on the assessment of leachate compliance within Phase 1.	Complete

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
	The Operator shall undertake any measures notified in writing by the Agency by the date indicated in the notification.	
8	Following twelve months monitoring, the Operator shall review available groundwater monitoring data and propose trigger Levels for the determinands listed in this improvement condition at the following locations: WBH 18, WBH 19 and WBH 20. The selected determinands are as follows: Ammoniacal Nitrogen; Chloride; Phenol; Cadmium; Tributyltin; Naphthalene. A report shall justifying the proposed trigger levels shall be submitted to the Environment Agency in writing for approval by the date specified. Upon written approval from the Environment Agency the revised trigger levels shall be incorporated into the permit.	Complete
9	The Operator shall undertake a review of the site's perimeter gas monitoring network to establish whether the current system is suitable to monitor for the presence of lateral landfill gas emissions. The review will be based on the monitoring data collected from January 2011 to December 2011 and will include a review of geological conditions surrounding the site. A detailed report of the findings will be submitted to the Environment Agency for review.	Complete
10	Unless otherwise agreed with the Environment Agency, the Operator shall install a continuous flow monitoring system at each of the operational groundwater monitoring sumps. The monitoring system will be used to provide the accurate measurement of volume of liquid removed from the site's undercell groundwater collection system.	Complete
11	The Operator shall submit to the Environment Agency results and analysis of the monitoring identified in Table S3.9 for the *road sweeping waste operation* collected from the first year of operation. Operator shall propose, for agreement with the Environment Agency, the monitoring frequency for the street sweeping waste activity.	2 months following first year of the road sweeping waste operation
12	The Operator shall review available groundwater monitoring data and propose trigger levels for Ammoniacal Nitrogen at the following monitoring locations: WBH 11A, WBH 12B. A report justifying the proposed trigger levels shall be submitted to the Environment Agency in writing for approval by the date specified. Upon written approval from the Environment Agency the revised trigger levels shall be incorporated into the permit.	Complete

Table S1.5 Annual waste input limits	
Category	**Limit Tonnes/ Year**
Non-hazardous waste	Permitted subject to the limits of the total annual tonnage specified below
Stable non-reactive hazardous waste	0
Inert waste	Permitted subject to the limits of the total annual tonnage specified below
Total	180,000

Table S1.4 Pre-operational measures for future development		
Reference	**Operation**	**Pre-operational measures**
1	Road sweeping waste operation	The operator shall submit a report, for approval by the Natural Resources Wales, demonstrating that the integrity of the landfill gas management system in operation at the site within the vicinity of the waste operation will not be effected. The report will detail how the Operator will ensure landfill gas management in the area where the treatment activity will occur. Similarly how the Operator will ensure access and maintenance to the gas wells and transmission pipework.

Schedule 2 – List of permitted wastes

Table S2.1 Permitted waste types for disposal at a landfill	
Waste code	**Description**
01	**Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals**
01 01	**wastes from mineral extraction**
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 01 10	waste metal

Table S2.1 Permitted waste types for disposal at a landfill	
Waste code	**Description**
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 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
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**

Table S2.1 Permitted waste types for disposal at a landfill	
Waste code	**Description**
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)
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**

Table S2.1 Permitted waste types for disposal at a landfill	
Waste code	**Description**
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 (solids only)
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
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

Table S2.1 Permitted waste types for disposal at a landfill	
Waste code	**Description**
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 (solids only)
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 water proofing products)**
08 04 10	waste adhesives and sealants other than those mentioned in 08 04 09
08 04 12	adhesive and sealant sludges other than those mentioned in 08 04 11
08 04 14	aqueous sludges containing adhesives or sealants other than those mentioned in 08 04 13
09	**Wastes from the photographic industry**
09 01	**wastes from the photographic industry**
09 01 07	photographic film and paper containing silver or silver compounds
09 01 08	photographic film and paper free of silver or silver compounds
09 01 10	single-use cameras without batteries
09 01 12	single-use cameras containing batteries other than those mentioned in 09 01 11
10	**Wastes from thermal processes**
10 01	**wastes from power stations and other combustion plants (except 19)**
10 01 01	bottom ash, slag and boiler dust (excluding boiler 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
10 01 19	wastes from gas cleaning other than those mentioned in 10 01 05, 10 01 07 and 10 01 18

Table S2.1 Permitted waste types for disposal at a landfill	
Waste code	**Description**
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

Table S2.1 Permitted waste types for disposal at a landfill	
Waste code	**Description**
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
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

Table S2.1 Permitted waste types for disposal at a landfill	
Waste code	**Description**
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 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)
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 01	hard zinc

Table S2.1 Permitted waste types for disposal at a landfill	
Waste code	**Description**
11 05 02	zinc ash
12	Wastes from Shaping and Physical and Mechanical Surface Treatment of Metals and Plastic
12 01	**wastes from shaping and physical and mechanical surface treatment of metals and plastics**
12 01 01	ferrous metal filings and turnings
12 01 02	ferrous metal dust and particles
12 01 03	non-ferrous metal filings and turnings
12 01 04	non-ferrous metal dust and particles
12 01 05	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 Clothes, Filter Materials and Protective Clothing Not Otherwise Specified
15 01	packaging (including separately collected municipal packaging waste)
15 01 01	**paper and cardboard packaging**
15 01 02	plastic packaging
15 01 03	wooden packaging
15 01 04	metallic packaging
15 01 05	composite packaging
15 01 06	mixed packaging
15 01 07	glass packaging
15 01 09	textile packaging
15 02	**absorbents, filter materials, wiping cloths and protective clothing**
15 02 03	absorbents, filter materials, wiping 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) 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 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

Table S2.1 Permitted waste types for disposal at a landfill	
Waste code	**Description**
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 01	wood
17 02 02	glass
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 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

Table S2.1 Permitted waste types for disposal at a landfill	
Waste code	**Description**
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
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 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 02	ferrous materials removed from bottom ash
19 01 12	bottom ash and slag other than those mentioned in 19 01 11
19 01 14	fly ash other than those mentioned in 19 01 13
19 01 16	boiler dust other than those mentioned in 19 01 15
19 01 18	pyrolysis wastes other than those mentioned in 19 01 17
19 01 19	sands from 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** Note 1
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

Note 1: Stabilisation processes change the dangerousness of the constituents in the waste and thus transform hazardous waste into non-hazardous waste. Solidification processes only change the physical state of the waste (e.g. liquid into solid) by using additives without changing the chemical properties of the waste.

Table S2.1 Permitted waste types for disposal at a landfill	
Waste code	**Description**
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 (sludges only)
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 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
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 that mentioned in 19 12 06
19 12 08	textiles
19 12 09	minerals (for example sand, stones)

Table S2.1 Permitted waste types for disposal at a landfill	
Waste code	**Description**
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 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 (solids and sludges only)
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 38	wood other than that mentioned in 20 01 37
20 01 39	plastics
20 01 40	metals
20 01 41	wastes from chimney sweeping
20 02	**garden and park wastes (including cemetery waste)**
20 02 01	biodegradable waste
20 02 02	soil and stones
20 02 03	other non-biodegradable wastes
20 03	**other municipal wastes**
20 03 01	mixed municipal waste
20 03 02	waste from markets
20 03 03	street-cleaning residues
20 03 04	septic tank sludge
20 03 06	waste from sewage cleaning
20 03 07	bulky waste

Table S2.2 Permitted waste types and quantities for waste operation	
M**aximum quantity**	20,000 tonnes per year
Waste code	**Description**
01	**WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, 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 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
17 05 06	dredging spoil other than those mentioned in 17 05 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 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 03	**other municipal wastes**
20 03 03	street-cleaning residues(Note 1)

Note 1 Dewatered street cleaning residues only

Table S2.3 Permitted waste types for restoration	
Waste code	Description
01	**Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals**
01 01	**Waste from mineral excavation**
01 01 02	Wastes from non metalliferous excavation
01 04	**wastes from physical and chemical processing of non-metalliferous minerals**
01 04 08	waste gravel and crushed rocks other than those containing dangerous substances
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 01 01	concrete

Table S2.3 Permitted waste types for restoration	
Waste code	Description
17 01 02	bricks
17 01 03	tiles and ceramics
17 05	soil (including excavated soil from contaminated sites), stones and dredging spoil
17 05 04	soil and stones (topsoil, peat, subsoil and stones)
17 05 06	dredging spoil
17 05 08	track ballast, soil and stones other than those containing dangerous substances
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 12	**wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**
19 12 09	Minerals (such as sand and stones) from the treatment of waste aggregates that are otherwise naturally occurring minerals. This excludes fines from treatment of any non-hazardous waste or gypsum from recovered plasterboard or residual fines from mechanical treatment of mixed waste at transfer stations
19 12 12	Crushed bricks, tiles, concrete and ceramics, including mixtures of materials. This excludes metal from reinforced concrete and fines from treatment of any non - hazardous waste or gypsum from recovered plasterboard or residual fines from mechanical treatment of mixed waste at transfer stations
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 (topsoil, peat, subsoil and stones)

Schedule 3 – Emissions and monitoring

Table S3.1 Leachate level limits and monitoring requirements			
Monitoring point reference/ Description	**Limit**	**Monitoring frequency**	**Monitoring standard and method**
Operational Cells or Phases (Any cells or phases that do not have a final engineered cap agreed in accordance with the landfill engineering condition, 2.6)			
Phase 2: All leachate monitoring points as detailed on drawing reference 478M408 "Environmental Monitoring Plan" dated 27/02/2023.	Not less than 0.5m below the minimum surrounding groundwater level Note 1	Monthly	As specified in Environment Agency Guidance, LFTGN 02: Guidance on monitoring of landfill leachate, groundwater and surface water (June 2014) Monitoring of landfill leachate, groundwater and surface water: LFTGN 02 - GOV.UK (www.gov.uk) or such other subsequent guidance as may be agreed in writing with Natural Resources Wales or as otherwise agreed with Natural Resources Wales as part of a leachate monitoring plan.
Non Operational Cells or Phases (Any cells or phases that have a final engineered cap agreed in accordance with the landfill engineering condition, 2.6)			
Phase 1: Leachate monitoring points PZC1C-2, PZC1C-1, PZC2A-1, PWLW0082, PWLW0091 and PWLW0101 as detailed on drawing reference 478M408 "Environmental Monitoring Plan" dated 27/02/2023	Not less than 0.5m below the minimum surrounding groundwater level Note 1	Monthly	As specified in Environment Agency Guidance, LFTGN 02: Guidance on monitoring of landfill leachate, groundwater and surface water (June 2014) Monitoring of landfill leachate, groundwater and surface water: LFTGN 02 - GOV.UK (www.gov.uk) or such other subsequent guidance as may be agreed in writing with Natural Resources Wales or as otherwise agreed with Natural Resources Wales as part of a leachate monitoring plan.

Note 1: Leachate levels (mAOD) to be compared to groundwater levels (mAOD) using monitoring required from Table S3.7 (groundwater level) and Table S3.9 (leachate level)

Table S3.2 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**
A2 Engines as shown on drawing Gas Compound Survey' ref. 5390_GC (dated 2015)	Oxides of Nitrogen	Gas utilisation plant	650 mg/m^3	Hourly mean	Annually	BS EN 14792 or other standard as agreed in writing with Natural Resources Wales
	CO		1500 mg/m^3			BS EN 15058 or other standard as agreed in writing with Natural Resources Wales
	Total VOCs		1750 mg/m^3			BS EN 12619 or other standard as agreed in writing with Natural Resources Wales
A1 Flare as shown on drawing Gas Compound Survey' ref. 5390_GC (dated 2015)	Oxides of Nitrogen	Landfill Gas Flares	150 mg/m^3	Hourly mean	Annually	BS EN 14792 or other standard as agreed in writing with Natural Resources Wales
	CO		50 mg/m^3			BS EN 15058 or other standard as agreed in writing with Natural Resources Wales
	Total VOCs		10 mg/m^3			BS EN 12619 or other standard as agreed in writing with Natural Resources Wales

Note 1 Monitoring is unnecessary where the flare is active for <10% of the year.

Table S3.3 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**
WP13 and PWDP1 as shown on	pH	Site drainage via	6 – 9	Spot sample	Monthly	As specified in Environment Agency Guidance, LFTGN 02: Guidance on monitoring of landfill leachate, groundwater and surface water (June 2014)
	Suspended solids		40mg/l	Spot sample		

Table S3.3 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**
drawing reference 478M408 "Environmental Monitoring Plan" received on 27/02/2023.	Visible oil or grease	settlement lagoons	No visible	Visual assessment		Monitoring of landfill leachate, groundwater and surface water: LFTGN 02 - GOV.UK (www.gov.uk) or such other subsequent guidance as may be agreed in writing with Natural Resources Wales.

Table S3.4 Groundwater – emission limits and monitoring requirements					
Monitoring point reference	**Parameter**	**Limit (including unit)**	**Reference Period**	**Monitoring frequency**	**Monitoring standard or method**
WBH5A, WBH5B, WBH10A, WBH10B, WBH11A, WBH11B, WBH12A, WBH16A, WBH16B as shown on drawing reference 478M408 "Environmental Monitoring Plan" dated 27/02/2023.	Ammoniacal Nitrogen	1.0 (mg/l)	Spot sample	Monthly Note 1	As specified in Environment Agency Guidance, LFTGN 02: Guidance on monitoring of landfill leachate, groundwater and surface water (June 2014) Monitoring of landfill leachate, groundwater and surface water: LFTGN 02 - GOV.UK (www.gov.uk) or such other subsequent guidance as may be agreed in writing with Natural Resources Wales.
	Chloride	250 (mg/l)			
	Cadmium	0.001 (mg/l)		Quarterly	
	Naphthalene	0.83 (ug/l)			
WBH12B as shown on drawing reference 478M408 "Environmental	Ammoniacal Nitrogen	1.8mg/l		Monthly Note 1	
	Chloride	250 (mg/l)			
	Cadmium	0.001 (mg/l)		Quarterly	

Monitoring Plan" dated 27/02/2023.	Naphthalene	0.83 (ug/l)			
WBH17B as shown on drawing reference 478M408 "Environmental Monitoring Plan" dated 27/02/2023.	Ammoniacal Nitrogen	1.5 (mg/l)		Monthly Note 1	
	Chloride	250 (mg/l)			
	Cadmium	0.001 (mg/l)		Quarterly	
	Naphthalene	0.83 (ug/l)			
WB17A as shown on drawing reference 478M408 "Environmental Monitoring Plan" dated 27/02/2023.	Ammoniacal Nitrogen	5 (mg/l)		Monthly Note 1	
	Chloride	250 (mg/l)			
	Cadmium	0.001 (mg/l)		Quarterly	
	Naphthalene	0.83 (ug/l)			
WBH18, WBH19, WBH 20 as shown on drawing reference 478M408 "Environmental Monitoring Plan" dated 27/02/2023.	Ammoniacal Nitrogen	1 (mg/l)		Monthly[1]	
	Chloride	50 (mg/l)			
	Cadmium	0.001 (mg/l)		Quarterly	
	Naphthalene	1 (ug/l)			

Note 1 Monthly monitoring frequency for ammoniacal nitrogen and chloride, unless otherwise agreed in writing with Natural Resources Wales.

Table S3.5 Landfill gas in external monitoring boreholes – limits and monitoring requirements

Monitoring point Ref. /description	Parameter	Limit (including units)	Monitoring frequency	Monitoring standard or method
All landfill gas monitoring points and WBH20 as shown on drawing reference 478M408 "Environmental	Methane	1% vol above agreed background concentrations	Monthly	As per LFTGN03 Management of landfill gas (June 2014) Management of landfill gas: LFTGN 03 - GOV.UK (www.gov.uk) or such other subsequent guidance as may be agreed in writing with Natural Resources Wales.
	Oxygen	No limit		
	Atmospheric pressure	No limit		
		No limit		Record whether the ground is:

Table S3.5 Landfill gas in external monitoring boreholes – limits and monitoring requirements				
Monitoring point Ref. /description	**Parameter**	**Limit (including units)**	**Monitoring frequency**	**Monitoring standard or method**
Monitoring Plan" dated 27/02/2023.	Meteorological data			waterlogged frozen snow covered

Table S3.6 Landfill gas emissions from capped surfaces – monitoring requirements				
Monitoring point Ref. /description	**Parameter**	**Monitoring frequency**	**Monitoring Standard or method**	**Other specifications**
Permanently capped zone	Methane concentration	Annually	As per LFTGN 07 Monitoring landfill gas surface emissions (2014) Monitoring landfill gas surface emissions: LFTGN 07 - GOV.UK (www.gov.uk) or such other subsequent guidance as may be agreed in writing with Natural Resources Wales.	Where a rate of 0.001 mg/m^2/second is exceeded appropriate measures must be taken to reduce the rate.
Temporarily capped zone	Methane concentration	Annually	As per LFTGN 07 Monitoring landfill gas surface emissions (2014) Monitoring landfill gas surface emissions: LFTGN 07 - GOV.UK (www.gov.uk) or such other subsequent guidance as may be agreed in writing with Natural Resources Wales.	Where a rate of 0.1 mg/m^2/second is exceeded appropriate measures must be taken to reduce the rate.

Note 1: 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 Flame Ionisation Detector 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 S3.7 Groundwater – other monitoring requirements			
Monitoring Point Ref. /Description	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**
All groundwater monitoring boreholes, and subsequent new monitoring points installed as shown on drawing reference 478M408 “Environmental Monitoring Plan” dated 27/02/2023.	Groundwater Level (mAOD)	Monthly	As specified in Environment Agency Guidance, LFTGN 02: Guidance on monitoring of landfill leachate, groundwater and surface water (June 2014) Monitoring of landfill leachate, groundwater and surface water: LFTGN 02 - GOV.UK (www.gov.uk) or such other subsequent guidance as may be agreed in writing with Natural Resources Wales

Phase 1 and phase 2 boreholes: WBH10A, WBH10B, WBH11A, WBH11B, WBH12A, WBH12B WBH17A, WBH17B, WBH05A, WBH05B, WBH16A, WBH16B, WBH18, WBH19, WBH20 as shown on drawing reference 478M408 "Environmental Monitoring Plan" dated 27/02/2023.	Temperature, pH, conductivity, chloride, ammoniacal nitrogen, total alkalinity ($CaCO_3$), magnesium, potassium, total sulphates, calcium, sodium, BOD, COD, TOC, TON, iron, zinc, lead, chromium, manganese, nickel, mercury.	Quarterly	
Phase 2 boreholes: WBH05A, WBH05B, WBH16A, WBH16B, WBH18, WBH19, WBH20 (and all subsequent new monitoring points installed) as shown on drawing reference 478M408 "Environmental Monitoring Plan" dated 27/02/2023.	Hazardous substances detected in leachate Note 1 Depth to base of monitoring borehole	Annual	

Note 1: Hazardous substances detected in the leachate, in accordance with Table S3.9

Table S3.8 Landfill gas – other monitoring requirements				
Monitoring Point Ref. /Description	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
Individual gas extraction wellheads or manifolds.	Methane	Monthly	As per LFTGN03 Management of landfill gas (June 2014) Management of landfill gas: LFTGN 03 - GOV.UK (www.gov.uk) or such other subsequent guidance as may be agreed in writing with Natural Resources Wales.	For cells or phases which have no active gas extraction. Gas extraction system shall be installed and extraction commenced once monitoring shows onset of methane production in waste at a rate that can be sustainably extracted. Once gas extraction has commenced in a particular cell or phase, there is no longer a requirement to carry out this monitoring.
	Carbon Dioxide			
	Oxygen			
	Carbon Monoxide			
	Differential pressure			
	Atmospheric pressure			
	Meteorological Data			
Input to Engines and/or Flare	Methane	Weekly		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
	Carbon Dioxide			
	Oxygen			
	Gas flow rate			

Table S3.8 Landfill gas – other monitoring requirements				
Monitoring Point Ref. /Description	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
	Trace gas analysis	Annually	In accordance with guidance in LFTGN 04 Monitoring trace components in landfill gas (June 2014) Monitoring trace components in landfill gas: LFTGN 04 - GOV.UK (www.gov.uk) or such other subsequent guidance as may be agreed in writing with Natural Resources Wales.	-

Table S3.9 Leachate – other monitoring requirements			
Monitoring Point Ref. /Description	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**
Leachate monitoring points (2 per cell)	Leachate Level (mAOD)	Monthly	As specified in Environment Agency Guidance, LFTGN 02: Guidance on monitoring of landfill leachate, groundwater and surface water (June 2014) Monitoring of landfill leachate, groundwater and surface water: LFTGN 02 - GOV.UK (www.gov.uk) or such other subsequent guidance as may be agreed in writing with Natural Resources Wales
Leachate sampling points (1 sump per cell)	Ammoniacal-N, chloride, pH, total alkalinity ($CaCO_3$), magnesium, potassium, total sulphates, calcium, sodium, BOD, COD, TOC, TON, iron, zinc, , lead, chromium, manganese, nickel, phenol.	Quarterly	
	Cadmium, mecoprop, mercury, napththalene, toluene,	Six-monthly Note 1	

Table S3.9 Leachate – other monitoring requirements			
Monitoring Point Ref. /Description	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**
	Hazardous substances screen Depth to base of monitoring well	Annually	
Road sweeping waste operation	Copper, Mercury, Ammoniacal Nitrogen (as N), PAH, TPH	Monthly for the first 12 months of operation of the activity. Frequency to be agreed on completion of IC11	

Note 1: Six-monthly frequency reduced to annually if data shows minimal occurrence in the leachate, and agreed in writing with Natural Resources Wales

Table S3.10 Surface water – other monitoring requirements				
Monitoring Point Ref. /Description	**Parameter** Note 1	**Monitoring frequency** Note 2	**Monitoring standard or method**	**Other specifications**
WP12, WP13, WP20, WP23 and PWDP1 as shown on drawing reference 478M408 "Environmental Monitoring Plan" dated 27/02/2023.	Temperature pH EC Ammoniacal Nitrogen Chloride	Monthly	Spot sample	As specified in Environment Agency Guidance, LFTGN 02: Guidance on monitoring of landfill leachate, groundwater and surface water (June 2014) Monitoring of landfill leachate, groundwater and surface water: LFTGN 02 - GOV.UK (www.gov.uk) or such other subsequent guidance as may be agreed in writing with Natural Resources Wales
	Total alkalinity (CaCO3), magnesium, potassium, total sulphates, calcium, sodium, BOD, COD, TOC, TON, iron, zinc, cadmium, lead, chromium,	Quarterly		

Table S3.10 Surface water – other monitoring requirements				
Monitoring Point Ref. /Description	**Parameter** Note 1	**Monitoring frequency** Note 2	**Monitoring standard or method**	**Other specifications**
	manganese, nickel, mercury, toluene, benzene, xylene, total petroleum hydrocarbons (C6-C40), phenol, tributyltin compounds, pentachlorophenol, napththalene			

Note 1: Monitoring parameters as specified, unless otherwise agreed in writing with Natural Resources Wales

Note 2: Monitoring frequencies as specified, unless otherwise agreed with Natural Resources Wales

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	**Reporting period**	**Period ends**
Leachate levels relative to groundwater levels As specified by schedule 3, table S3.1	Every 3 months	31 March, 30 June, 30 September, 31 December
Point source emission to air As specified by schedule 3, table S3.2	Every 12 months	31 December
Point source emission to water (other than sewer) As specified by schedule 3, table S3.3	Every 3 months	31 March, 30 June, 30 September, 31 December
Emission to groundwater As specified by schedule 3, table S3.4	Every 3 months	31 March, 30 June, 30 September, 31 December
Landfill gas in external monitoring boreholes As specified by schedule 3, table S3.5	Every 3 months	31 March, 30 June, 30 September, 31 December
Emission of landfill gas from capped surfaces As specified by schedule 3, table S3.6	Every 12 months	31 December
Other groundwater monitoring As specified by schedule 3, table S3.7	Every 3 months	31 March, 30 June, 30 September, 31 December
Other Landfill gas monitoring As specified by schedule 3, table S3.8 Trace gas monitoring	Every 3 months Every 12 months	31 March, 30 June, 30 September, 31 December 31 December
Other leachate monitoring As specified by schedule 3, table S3.9	Every 12 months	31 December

Table S4.1 Reporting of monitoring data		
Parameter	**Reporting period**	**Period ends**
Other surface water monitoring As specified by schedule 3, table S3.10	Every 12 months	31 December
Meteorological data Landfill Directive, annex III, section 2	Every 12 months	31 December

* - where the reporting period is 12 months, you may submit this information as part of the 'annual report' required by condition 4.2.2.

Table S4.2: Annual production/treatment	
Leachate: Disposed of off site; Disposed of to any onsite effluent treatment plant; Recirculated into the waste mass.	Cubic metres/year
Landfill gas: combustion in flares; combustion in gas engines; Other methods of gas utilisation.	Normalised cubic metres/year

Table S4.3 Performance Parameters				
Parameter	**Frequency of assessment**	**Annual total**		**Unit**
Energy used (including for leachate treatment)	Annually	-	MWh of electricity or natural gas	
Potable water use		-	Cubic metres	
Non potable water use		-	Cubic metres	

Table S4.4 Reporting Forms		
Media/parameter	**Reporting Format**	**Date of Form**
Leachate	Form Leachate 1 or other reporting format to be agreed in writing with Natural Resources Wales	19/12/2023
Air	Form Air 1 or other reporting format to be agreed in writing with Natural Resources Wales	19/12/2023
Controlled water	Form Water 1 or other reporting format to be agreed in writing with Natural Resources Wales	19/12/2023
Groundwater	Form Groundwater 1 or other reporting format to be agreed in writing with Natural Resources Wales	19/12/2023
Landfill gas	Form LFG 1 or other reporting format to be agreed in writing with Natural Resources Wales	19/12/2023
Waste Return	E-waste Return Form	-
Landfill topographical surveys and interpretation	Reporting format to be agreed in writing with Natural Resources Wales	19/12/2023

Schedule 5 – 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 EP Regulations.

Part A

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

(a) Notification requirements for any incident or accident which significantly affects or may significantly affect the environment	
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	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
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 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 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 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.

“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 5 to the EP Regulations.

“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.

(a) “Cell layout drawing” means: 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.

“emissions to land” includes emissions to groundwater.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations 2010, SI 2010 No.675. Words and expressions used in this permit which are also used in those 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.

“exceeded” means that a value is above a permitted limit, or where a range of values or a minimum value is set as a permitted limit it means a value outside that range or below the minimum value, whichever is applicable.

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

“Hazardous substances” as defined by the Environmental Permitting (England and Wales) Regulations 2010, SI 2010 No.675, schedule 22 and listed in our Hydrogeological risk assessment guidance, annex J to our H1 risk assessment guidance.

“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.

“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.

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

“List of Wastes” means the list of wastes established by Commission Decision 2000/532/EC replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste, as amended from time to time.

“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.

“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.

"inert waste" means waste that does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and in particular not endanger the quality of surface water and/or groundwater

“Medicinal product” means any medicine licensed by the Medicines and Healthcare products Regulatory Agency (MHRA) or 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.

“MEPP” Monitoring and extraction point plan, required by condition 4.2.2(h) to specify extraction points and routine monitoring locations.

“MCERTS” means Natural Resources Wales’s Monitoring Certification Scheme.

“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.

“Pests” means Birds, Vermin and Insects.

“Previous year” means the 12 month period preceding the month the annual report is submitted in.

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

“Relevant waste acceptance procedures” means the procedure for the acceptance of waste at landfills and the associated sampling and test methods specified in the Council Decision Annex (2003/33/EC, European Council of 19 December 2002).

“Relevant waste acceptance criteria” means the waste acceptance criteria and the associated sampling and test methods specified in the Council Decision Annex (2003/33/EC, European Council of 19 December 2002).

”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 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.

‘Sustainably extracted’ means where suction can be applied to the extraction wells such that a flow rate of landfill gas, with a methane content capable of either being combusted, or treated by bio-oxidation, can be extracted without increasing the risk of air ingress to the waste or inducing aerobic degradation within the waste.

“Technically competent management” and “technical competence” shall have the meanings given to them in the Environmental Protection Act 1990

‘Waste code’ - See ‘List of Wastes’.

“WFD” means Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste [and repealing certain Directives] – the Waste Framework Directive.

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.

“Year” means calendar year ending 31 December

Where the following terms appear in the waste code list in Tables S2.1, S2.2 or S2.3 they have the meaning given below:

‘hazardous substance’ means a substance classified as hazardous as a consequence of fulfilling the criteria laid down in parts 2 to 5 of Annex I to Regulation (EC) No 1272/2008;

‘heavy metal’ means any compound of antimony, arsenic, cadmium, chromium (VI), copper, lead, mercury, nickel, selenium, tellurium, thallium and tin, as well as these materials in metallic form, as far as these are classified as hazardous substances;

‘polychlorinated biphenyls and polychlorinated terphenyls’ (‘PCBs’) means PCBs as defined in Article 2(a) of Council Directive 96/59/EC’.
Article 2(a) says that ‘PCBs’ means:

- polychlorinated biphenyls
- polychlorinated terphenyls
- monomethyl-tetrachlorodiphenyl methane, Monomethyl-dichloro-diphenyl methane, Monomethyldibromo-diphenyl methane
- any mixture containing any of the above mentioned substances in a total of more than 0,005 % by weight;

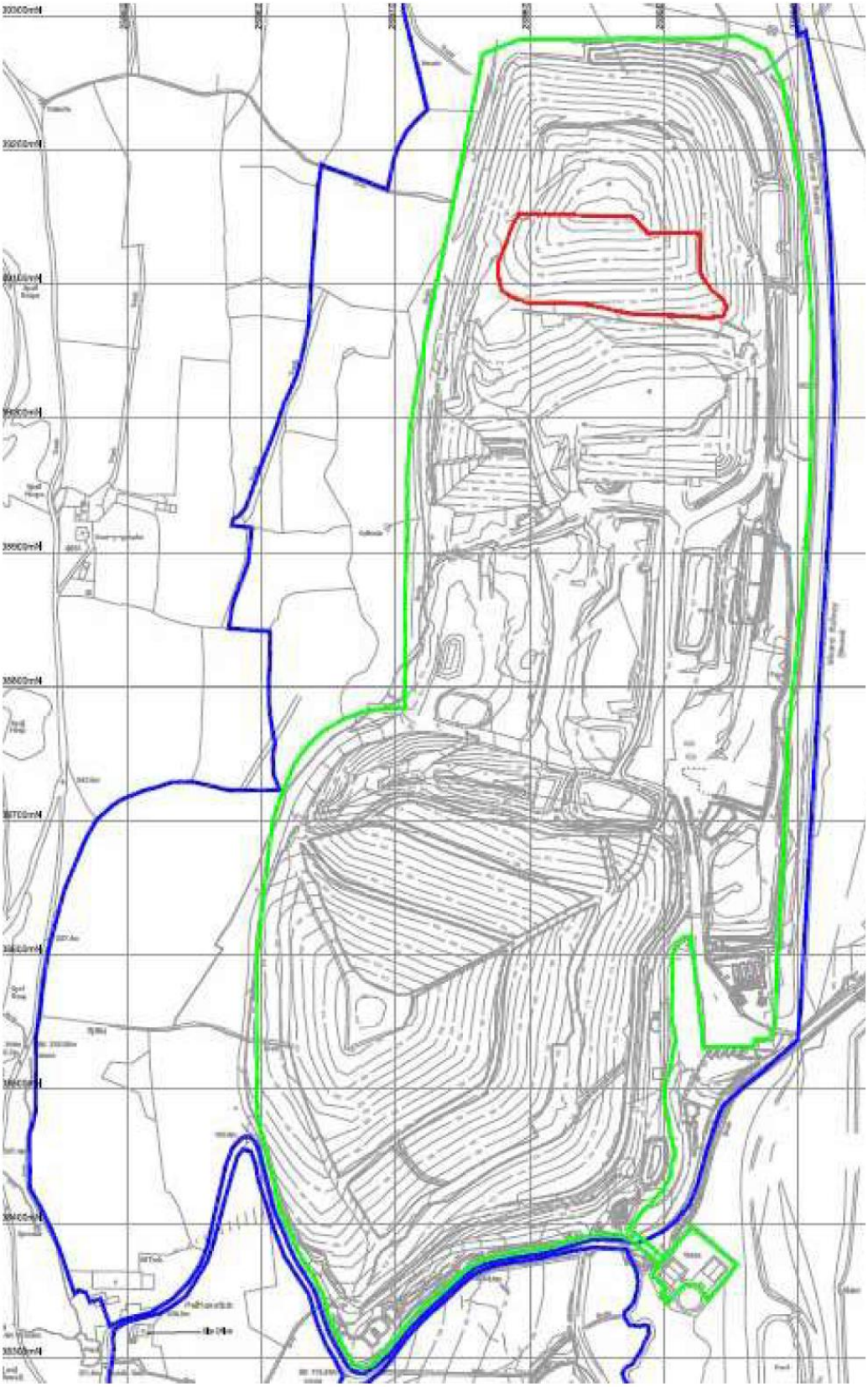
‘transition metals’ means any of the following metals: any compound of scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum and tantalum, as well as these materials in metallic form, as far as these are classified as hazardous substances;

‘stabilisation’ means processes which change the hazardousness of the constituents in the waste and transform hazardous waste into non-hazardous waste;

‘solidification’ means processes which only change the physical state of the waste by using additives without changing the chemical properties of the waste;

‘partly stabilised wastes’ means wastes containing, after the stabilisation process, hazardous constituents which have not been changed completely into non-hazardous constituents and could be released into the environment in the short, middle or long term.

Schedule 7 – Site plan



END OF PERMIT.