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Wales

Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

WRG (Midlands) Limited

Gardden Clay Pit and Gardden Lodge

Tatham Road

Ruabon

Wrexham

Clwyd

LL14 6RD

Permit number

EPR/BP3494FC

Gardden Clay Pit and Gardden Lodge

Permit number EPR/BP3494FC

Introductory note

This introductory note does not form a part of the permit

The main features of the permit are as follows.

The Site was previously regulated by two adjoining environmental permits EPR/BP3494FC (previously WMBC L50) and EPR/HP3694FJ (previously WMBC L82), operated by WRG (Midlands) Limited, a wholly owned subsidiary of FCC Environment (UK) Ltd.

“Gardden Clay Pit” operated between 1977 and 1984. From 1960 to ~1989 was occupied by Williams Brothers and then DH Jones who landfilled the northernmost part of the Site with wastes including fibreglass and PFA. Shanks occupied the Site from 1989 and continued landfilling activities until 1997, restoration was completed between 1999 – 2000. The Site accepted mines / quarry waste, construction, demolition, excavation wastes, household and commercial wastes and asbestos.

The landfill was developed on the principle of containment by the provision of:

- an artificially established geological barrier of engineered clay (marl) to complement the existing geological barrier where adjacent to higher permeability strata; and
- an artificial sealing liner comprising artificially established compacted clay.

Key management activities that continue to be undertaken under this permit include:

- Operation and maintenance of landfill gas extraction system;
- Treatment and utilisation of extracted landfill gas;
- Operation and maintenance of leachate extraction system; extraction and tankering of excess leachate off site for treatment and disposal;
- Regular environmental monitoring of landfill gas, leachate, groundwater and surface water, and reporting.

The conditions of this permit reflect that the landfill site will now be operated and maintained in accordance with the agreed closure plan during the aftercare phase.

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

Status log of the permit

Description	Date	Comments
Application EPR/BP3494FC/V009 (variation and consolidation)	Duly Made 31/01/22	Application to amend leachate level limits, monitoring schedules, and to consolidate and update the permit with EPR/HP3694FJ into modern format.
Additional information received in response to Schedule 5 notice	19/08/22	Updated Environment Monitoring Plan
	21/08/22	Updated Non-Technical Summary, Hydrogeological Risk Assessment, Landfill Gas Risk Assessment, ESID, Monitoring Plan, and Management & Inspection Plan [Working Plan]
Additional information received	20/09/22	Updated Management & Inspection Plan [Working Plan]
Additional information received in response to Schedule 5 notice	07/12/22	Updated Hydrogeological Risk Assessment, Monitoring Plan, and Management & Inspection Plan [Working Plan]
Additional information received	02/02/23	Updated Hydrogeological Risk Assessment, Monitoring Plan, and Management & Inspection Plan [Working Plan]
Additional information received	22/02/23	Updated Leachate Management Plan
Variation determined EPR/BP3494FC	01/03/23	Varied and consolidated permit issued in modern condition format.

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/BP3494FC

The Natural Resources Body for Wales (“Natural Resources Wales”) authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016

WRG (Midlands) Limited (“the operator”),

whose registered office is

Greengairs Landfill

Meikle Drumgray Road

Greengairs

Airdrie

Lanarkshire

ML6 7TD

company registration number **SC043286**

to operate waste operations at

Gardden Clay Pit and Gardden Lodge

Tatham Road

Ruabon

Wrexham

Clywd

LL14 6RD

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

Name	Date
Huw Davies	01/03/2023

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 Avoidance, recovery and disposal of wastes produced by the activities

- 1.2.1 The operator shall take appropriate measures to ensure that:
- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
 - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
 - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.
- 1.2.2 The operator shall review and record at least every four years whether changes to those measures should be made and 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 (a) The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by Natural Resources Wales.
- (b) If notified by Natural Resources Wales that the activities are giving rise to pollution, the operator shall submit to Natural Resources Wales for approval within the period specified, a revision of any plan or other documentation ("plan") specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by Natural Resources Wales.

2.4 Improvement programme

- 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by Natural Resources Wales.
- 2.4.2 Except in the case of an improvement which consists only of a submission to Natural Resources Wales, the operator shall notify Natural Resources Wales within 14 days of completion of each improvement.

2.5 Landfill Engineering

- 2.5.1 No construction of landfill infrastructure shall commence until the operator has submitted relevant construction proposals or a written request to use previous construction proposals and Natural Resources Wales has confirmed that it is satisfied with the construction proposals.
- 2.5.2 The construction of the landfill infrastructure shall take place only in accordance with the approved construction proposals unless:
- (a) any change to the approved construction proposals would have no impact on the performance of any element of the design; or
- (b) a change has otherwise been agreed in writing by Natural Resources Wales.
- 2.5.3 The operator shall submit a CQA Validation Report as soon as practicable following the construction of the relevant landfill infrastructure.
- 2.5.4 Where pollution controls are immediately necessary to prevent an incident or accident, then conditions 2.6.1 and 2.6.2 do not apply and the relevant landfill infrastructure may be constructed, provided that the construction proposals are submitted to Natural Resources Wales as soon as practicable.
- 2.5.5 For the purpose of condition 2.6.1, Natural Resources Wales shall be deemed to be satisfied where it has not, within the period of four weeks from the date of receipt of the relevant construction proposals or CQA Validation Report, either:
- (a) confirmed whether or not it is satisfied; or
- (b) informed the operator that it requires further information.
- 2.5.6 Where Natural Resources Wales has required further information under condition 2.6.5(b), Natural Resources Wales shall be deemed to be satisfied where it has not, within the period of four weeks from the date of receipt of the further information, either:
- (a) confirmed whether or not it is satisfied; or

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

2.6 Waste acceptance

- 2.6.1 No waste shall be accepted for disposal within the facility.

2.7 Leachate levels

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

2.8 Closure and aftercare

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

2.9 Landfill Gas Management

- 2.9.1 The operator shall take appropriate measures, including, but not limited to, those specified in any approved landfill gas management plan, to:
 - (a) collect landfill gas; and
 - (b) control the migration of landfill gas.
- 2.9.2 The operator shall use the collected landfill gas to produce energy. If the collected landfill gas cannot be used to produce energy, the operator shall flare or otherwise treat the gas.
- 2.9.3 The operator shall:
 - (a) if notified by Natural Resources Wales, submit to Natural Resources Wales for approval within the period specified, a revised landfill gas management plan;
 - (b) implement the revised landfill gas management plan, from the date of approval, unless otherwise agreed in writing by Natural Resources Wales.

3 Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.2, S3.3 and S3.4.
- 3.1.2 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.
- 3.1.3 There shall be no emission from the activities into groundwater of any hazardous substances contrary to the EP Regulations.
- 3.1.4 There shall be no emission from the activities into groundwater of any non-hazardous pollutants so as to cause pollution.
- 3.1.5 The operator shall submit to Natural Resources Wales a review of the Hydrogeological Risk Assessment:
 - (a) between nine and six months prior to the sixth anniversary of the granting of the permit, and

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

3.1.6 The limits for landfill gas arising from the facility set out in schedule 3, table S3.5 shall not be exceeded.

3.2 Emissions of substances not controlled by emission limits

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

3.2.2 The operator shall:

- (a) if notified by Natural Resources Wales that the activities are giving rise to pollution, submit to Natural Resources Wales for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
- (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by Natural Resources Wales.

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

3.3 Odour

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

3.3.2 The operator shall:

- (a) if notified by Natural Resources Wales that the activities are giving rise to pollution outside the site due to odour, submit to Natural Resources Wales for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
- (b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by Natural Resources Wales.

3.4 Noise and vibration

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

3.4.2 The operator shall:

- (a) if notified by Natural Resources Wales that the activities are giving rise to pollution outside the site due to noise and vibration, submit to Natural Resources Wales for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
- (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by Natural Resources Wales.

3.5 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 S3.7;
- (b) Point source emissions specified in tables S3.2, S3.3 and S3.4;
- (c) Groundwater specified in tables S3.9;
- (d) Landfill gas specified in tables S3.5 and S3.6; and
- (e) Surface water specified in table S3.8.

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:

- (a) Years 1 and 2 post closure - annually,
- (b) Year 3 onwards – every two years, and
- (c) Review of frequency after Year 7 dependent on identification of changes in the landfill topography.

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

3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1, S3.2 [,S3.3 etc.] unless otherwise agreed in writing by Natural Resources Wales.

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) off-site environmental effects; and
 - (ii) matters which affect the condition of the land and groundwater.
 - (iii) the results of groundwater monitoring;
 - (iv) sub-surface landfill gas monitoring;
 - (v) leachate levels, quality and quantities;
 - (vi) landfill gas generation and collection;
 - (vii) waste types and quantities;
 - (viii) the location of hazardous waste deposits; and
 - (ix) 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 all reports and notifications required by the permit to Natural Resources Wales using the contact details supplied in writing by Natural Resources Wales.

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

- (a) a review of the results of the monitoring and assessment carried out in accordance with this permit against the relevant assumptions, parameters and results in the risk assessments submitted in relation to this facility and any agreed amendments thereto;
- (b) the annual production/treatment set out in schedule 4 table S4.2;
- (c) the topographical surveys required by condition 3.5.3 other than those submitted as part of a CQA validation report;
- (d) 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;

- 4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by Natural Resources Wales, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
 - (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.3; and
 - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to Natural Resources Wales, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.3 Notifications

- 4.3.1 (a) In the event that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
- (i) inform Natural Resources Wales,
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
 - (iii) take the measures necessary to prevent further possible incidents or accidents;
- (b) in the event of a breach of any permit condition the operator must immediately—
- (i) inform Natural Resources Wales, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
- (c) in the event of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.
- 4.3.2 Any information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 Where Natural Resources Wales has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform Natural Resources Wales when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to Natural Resources Wales at least 14 days before the date the monitoring is to be undertaken.
- 4.3.4 Natural Resources Wales shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:
- Where the operator is a registered company:
- (a) any change in the operator's trading name, registered name or registered office address; and

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

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

- (a) any change in the operator's name or address; and
- (b) any steps taken with a view to the dissolution of the operator.

In any other case:

- (a) the death of any of the named operators (where the operator consists of more than one named individual);
- (b) any change in the operator's name(s) or address(es); and
- (c) 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.

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

- (a) Natural Resources Wales shall be notified at least 14 days before making the change; and
- (b) the notification shall contain a description of the proposed change in operation.

4.4 Interpretation

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

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "without delay", in which case it may be provided by telephone.

Schedule 1 - Operations

Table S1.1 activities		
Activity reference	Description of activities for waste operations	Limits of activities
A1	D1: Deposit into or onto land (e.g. landfill)	Management and monitoring of emissions from the closed landfill (e.g. leachate and landfill gas) Including the utilisation and flaring of landfill gas.

Table S1.2 Operating techniques		
Description	Parts	Date Received
Response to Schedule 5 Notice dated 08/07/22	Ruabon Landfill Management And Inspection Plan, Report No 4915/R/005/3, dated December 2022 - All parts (including appendices)	07/12/22
	Environment Monitoring Plan, Drawing No. 478M035, dated 30.01.23	02/02/23
	Ruabon Landfill Hydrogeological Risk Assessment, Report No 4915/R/004/4, dated February 2023. Sections: - 8. Recommendations; and - 9. Requisite Surveillance	02/02/23
	Leachate Management Plan v7, dated January 2023	22/02/23

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IPC1	The operator shall undertake a review of the surface water management system, prepare a report and submit it to Natural Resources Wales for written approval. The report shall include proposed monitoring frequencies, analytical suites and monitoring locations with justification for the proposals.	Within 12 months of issue of this consolidated permit

Schedule 2 - Waste types, raw materials and fuels

No waste shall be accepted for disposal or recovery.

Schedule 3 – Emissions and monitoring

Table S3.1 Leachate level limits and monitoring requirements

Monitoring point reference/ Description	Limit*	Monitoring frequency	Monitoring method
GWM1	114 mAOD	Monthly	As per LFTGN02
GWM3	114.25 mAOD		'Guidance on the
GWM4r	116 mAOD		monitoring of landfill
GWM5	119 mAOD		leachate, Groundwater
GWM10	106.6 mAOD		and surface water' or
LMP2r	114 mAOD		as agreed in writing
LMP6r	119 mAOD		with Natural Resources
GWM7r (LMP7r)	119 mAOD		Wales.
GWM8r (LMP8)	125 mAOD		
GWM9r (LMP9r)	125 mAOD		
identified on Environmental Monitoring Plan, Drawing No. 478M035			

* Unless otherwise agreed in writing with Natural Resources Wales

Table S3.2 Point source emissions to air – emission limits and monitoring requirements

Emission point Ref. & Location	Source	Parameter	Limit (including unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
Gas Utilisation Plat, located within Flare Compound/ Power Station as shown on Environmental Monitoring Plan, Drawing No. 478M035	Gas utilisation plant	Oxides of Nitrogen	500 mg/m ³	Hourly mean	Annually	As per LFTGN 08 'Guidance for monitoring landfill gas engine emissions', or such other guidance as may be agreed in writing with Natural Resources Wales
		CO	1400 mg/m ³	Hourly mean		
		Total VOCs	1000 mg/m ³	Hourly mean		
Flare, located within Flare Compound/ Power Station as shown on Environmental Monitoring Plan, Drawing No. 478M035	Landfill Gas Flares	Oxides of Nitrogen	150 mg/m ³	Hourly mean	Annually ¹	As per LFTGN 05 'Guidance for monitoring enclosed landfill gas flares', or such other guidance as may be agreed in writing with Natural Resources Wales
		CO	50 mg/m ³	Hourly mean		
		Total VOCs	10 mg/m ³	Hourly mean		

Note (1): Annual monitoring of flares is only required when flare operate in excess of 10% of the time, taken on an annual assessment period.

Table S3.3 Point source emissions to water (other than sewer) – emission limits and monitoring requirements

Emission point Ref. & Location	Source	Parameter	Limit (incl unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
WMP4a (sample point) identified on Environmental Monitoring Plan, Drawing No. 478M035 Discharge at NGR SJ 3015 4483 to Afon Goch	Trade effluent comprising of site drainage discharged via surface water lagoon	Suspended Solids	50 mg/l	Spot Sample	Quarterly	As per LFTGN02 issued February 2003 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water'.
		Ammoniacal Nitrogen	1.3mg/l			
		Chloride	250 mg/l			
		pH	>5 and <9 pH units			
		Oil and grease	No visible oil and grease			

Table S3.4 Point source emissions to sewer, effluent treatment plant or by tankering or other transfer off-site– emission limits and monitoring requirements

Emission point Ref. & Location	Source	Parameter	Limit (incl unit)	Reference Period	Monitoring Frequency	Monitoring Standard or Method
Leachate tank, identified on Environmental Monitoring Plan, Drawing No. 478M035	Landfill leachate	-	-	-	-	-

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
BH2a, BH3b, BH4b, BH6, GBH3, GBH4, GBH5 identified on Environmental Monitoring Plan, Drawing No. 478M035	Methane	1 %v/v	Weekly	As specified in LFTGN 03 issued September 2004 'Guidance on the management of landfill gas', or such other guidance as may be agreed in writing with Natural Resources Wales
	Carbon Dioxide	1.5 %v/v		
	Oxygen	No limit		
	Atmospheric pressure	No limit		
	Differential Pressure	No limit		
	Temperature	No limit		
	Meteorological data	-		
BH7 identified on Environmental Monitoring Plan, Drawing No. 478M035	Methane	1 %v/v		
	Carbon Dioxide	1.4 %v/v		
	Oxygen	No limit		
	Atmospheric pressure	No limit		
	Differential Pressure	No limit		
	Temperature	No limit		

	Meteorological data	-
BH8 identified on Environmental Monitoring Plan, Drawing No. 478M035	Methane	1 %v/v
	Carbon Dioxide	1.8 %v/v
	Oxygen	No limit
	Atmospheric pressure	No limit
	Differential Pressure	No limit
	Temperature	No limit
	Meteorological data	-
GBH1 identified on Environmental Monitoring Plan, Drawing No. 478M035	Methane	1 %v/v
	Carbon Dioxide	6.2 %v/v
	Oxygen	No limit
	Atmospheric pressure	No limit
	Differential Pressure	No limit
	Temperature	No limit
	Meteorological data	-
GBH2 identified on Environmental Monitoring Plan, Drawing No. 478M035	Methane	1 %v/v
	Carbon Dioxide	1.6 %v/v
	Oxygen	No limit
	Atmospheric pressure	No limit
	Differential Pressure	No limit
	Temperature	No limit
	Meteorological data	-
GBH2a identified on Environmental Monitoring Plan, Drawing No. 478M035	Methane	1 %v/v
	Carbon Dioxide	5.1 %v/v
	Oxygen	No limit
	Atmospheric pressure	No limit
	Differential Pressure	No limit
	Temperature	No limit
	Meteorological data	-
GBH6 identified on Environmental Monitoring Plan, Drawing No. 478M035	Methane	1 %v/v
	Carbon Dioxide	4.2 %v/v
	Oxygen	No limit
	Atmospheric pressure	No limit
	Differential Pressure	No limit
	Temperature	No limit
	Meteorological data	-

GP9, GP10, GP11, GP13, GP14 identified on Environmental Monitoring Plan, Drawing No. 478M035	Methane	1 %v/v	
	Carbon Dioxide	No limit	
	Oxygen	No limit	
	Atmospheric pressure	No limit	
	Differential Pressure	No limit	
	Temperature	No limit	
	Meteorological data	-	
BH1b, BH11a identified on Environmental Monitoring Plan, Drawing No. 478M035	Methane	1 %v/v	Monthly
	Carbon Dioxide	1.5 %v/v	
	Oxygen	No limit	
	Atmospheric pressure	No limit	
	Differential Pressure	No limit	
	Temperature	No limit	
	Meteorological data	-	
BH12a identified on Environmental Monitoring Plan, Drawing No. 478M035	Methane	1 %v/v	
	Carbon Dioxide	1.7 %v/v	
	Oxygen	No limit	
	Atmospheric pressure	No limit	
	Differential Pressure	No limit	
	Temperature	No limit	
	Meteorological data	-	
GBH10 identified on Environmental Monitoring Plan, Drawing No. 478M035	Methane	1 %v/v	
	Carbon Dioxide	2.7 %v/v	
	Oxygen	No limit	
	Atmospheric pressure	No limit	
	Differential Pressure	No limit	
	Temperature	No limit	
	Meteorological data	-	
GP2, GP4, GP8, GP16, GP19, GP20, GP21, A1, A2, A3, B1, B2, B3, C1, C2, C3, D1, D2, D3, E1, E2, E3, F1, F2, F3 identified on Environmental Monitoring Plan, Drawing No. 478M035	Methane	1 %v/v	
	Carbon Dioxide	No limit	
	Oxygen	No limit	
	Atmospheric pressure	No limit	
	Differential Pressure	No limit	
	Temperature	No limit	
	Meteorological data	-	
BH14, GBH7, GBH8, GBH9 identified on	Methane	1 %v/v	Quarterly
	Carbon Dioxide	1.5 %v/v	

Environmental Monitoring Plan, Drawing No. 478M035	Oxygen	No limit
	Atmospheric pressure	No limit
	Differential Pressure	No limit
	Temperature	No limit
	Meteorological data	-
GP1, GP15, GP18 identified on Environmental Monitoring Plan, Drawing No. 478M035	Methane	1 %v/v
	Carbon Dioxide	No limit
	Oxygen	No limit
	Atmospheric pressure	No limit
	Differential Pressure	No limit
	Temperature	No limit
	Meteorological data	-

* Unless otherwise agreed in writing with Natural Resources Wales

Table S3.6 Landfill gas – other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
In waste monitoring boreholes	Methane Carbon Dioxide Oxygen Carbon Monoxide Hydrogen sulphide Atmospheric pressure Differential pressure Meteorological Data	Six-monthly	As per LFTGN03 issued September 2004 'Guidance on the management of landfill gas'.	
Gas collection system at well control valve and manifolds on gas system	Methane Carbon Dioxide Oxygen Carbon Monoxide Hydrogen sulphide Atmospheric pressure Differential pressure % Balance Gas (calculated as the difference between the sum of measured gases and 100%)	Monthly	As per LFTGN03 issued September 2004 'Guidance on the management of landfill gas'.	Where the oxygen concentration exceeds 5% or the % balance gas is greater than 20% an assessment of air ingress into the system shall be undertaken. Where the concentration of carbon monoxide exceeds 100ppm then further investigation shall be undertaken.

Table S3.6 Landfill gas – other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Input to LFG Utilisation Compound	Trace gas analysis in accordance with LFTGN04	Annually	As per LFTGN04 issued September 2004 'Guidance for Monitoring Trace Components in Landfill Gas'.	The concentration of trace gas components shall be assessed against the assumptions made in the Landfill gas risk assessment and dispersion modelling.
Input to LFG Utilisation Compound	Methane Carbon Dioxide Oxygen Gas flow rate % Balance Gas (calculated as the difference between the sum of measured gases and 100%)	Weekly		Where the oxygen concentration exceeds 5% or the % balance gas is greater than 20% an assessment of air ingress into the system shall be undertaken.

Table S3.7 Leachate– other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Leachate tank LT01 and LT02, identified on Environmental Monitoring Plan, Drawing No. 478M035	pH, Electrical conductivity, TON, TOC, COD, BOD Ammoniacal nitrogen, Chloride Calcium, Magnesium Sodium, Potassium Sulphate, Alkalinity Arsenic, Cadmium Chromium, Copper Nickel, Zinc, Lead Iron, Manganese	Quarterly	As per LFTGN02 'Guidance on the monitoring of landfill leachate, Groundwater and surface water' or as agreed in writing with Natural Resources Wales.	-
GWM1, GWM3, GWM4r, GWM5, GWM10, LMP2r LMP6r, GWM7r (LMP7r), GWM8r (LMP8), GWM9r (LMP9r), identified on Environmental Monitoring Plan, Drawing No. 478M035	Depth to base of monitoring well	Annually		

Table S3.8 Surface water – other monitoring requirements

Emission point reference or source or description of point of measurement*	Parameter*	Monitoring frequency*	Monitoring standard or method	Other specifications
WMP 1, WMP4a, WMP5, identified on Environmental Monitoring Plan, Drawing No. 478M035	Dissolved Oxygen, pH, Electrical Conductivity, Suspended Solids, Ammoniacal Nitrogen, BOD, COD, Chloride	Quarterly	As per LFTGN02 issued February 2003 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water'.	-

* Or as otherwise agreed in accordance with IPC1

Table S3.9 Groundwater – other monitoring requirements

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
WB5b, GBH9, WB3a, WB4a	Water level	Monthly	As per LFTGN02	-
BH2a, GBH6	pH, Electrical Conductivity, Ammoniacal Nitrogen,	Quarterly	Guidance on the monitoring of landfill leachate,	
WB2a, BH4b, BH3b, GBH5, WB2b, WB2d	TON(oxidised-N), TOC, BOD, COD, Calcium, Magnesium, Sodium, Potassium, Alkalinity, Sulphate, Chloride, Lead, Cadmium, Iron, Manganese, Chromium, Copper, Nickel, and Zinc.		Groundwater and surface water or as agreed in writing with Natural Resources Wales.	
identified on Environmental Monitoring Plan, Drawing No. 478M035	Base of monitoring point	Annually		
Groundwater Sump identified on Environmental Monitoring Plan, Drawing No. 478M035	Water level	Monthly		
	Base of monitoring point			

Schedule 4 - Reporting

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

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference		Period begins
Leachate levels As required by condition 3.5.1	GWM1, GWM3, GWM4r, GWM5, GWM10, LMP2r, LMP6r, GWM7r (LMP7r), GWM8r (LMP8), GWM9r (LMP9r)	Every 3 months	1 January, 1 April, 1 July, 1 October
Emissions to air Parameters as required by condition 3.5.1	Gas Utilisation Plant, and Flare	Every 12 months	1 January
Emissions to water Parameters as required by condition 3.5.1	WMP4a	Every 12 months	1 January
Groundwater Parameters as required by condition 3.5.1	WB5b, GBH9, WB3a, WB4a, BH2a, GBH6, WB2a, BH4b, BH3b, GBH5, WB2b, WB2d	Every 3 months	1 January, 1 April, 1 July, 1 October
Landfill gas lateral migration Parameters as required by condition 3.5.1	BH2a, BH3b, BH4b, BH6, GBH3, GBH4, GBH5, BH7, BH8, GBH1, GBH2, GBH2a, GBH6, GP9, GP10, GP11, GP13, GP14, BH1b, BH11a, BH12a, GBH10, GP2, GP4, GP8, GP16, GP19, GP20, GP21, A1, A2, A3, B1, B2, B3, C1, C2, C3, D1, D2, D3, E1, E2, E3, F1, F2, F3, BH14, GBH7, GBH8, GBH9, GP1, GP15, GP18	Every 3 months	1 January, 1 April, 1 July, 1 October
Other Landfill gas monitoring Parameters as required by condition 3.5.1	In waste monitoring boreholes	Every 12 months	1 January
	Gas collection system	Every 3 months	1 January, 1 April, 1 July, 1 October
	Input to LFG Utilisation Compound	Every 12 months	1 January
Other leachate monitoring Parameters as required by condition 3.5.1	Leachate Tank GWM1, GWM3, GWM4r, GWM5, GWM10, LMP2r LMP6r, GWM7r (LMP7r), GWM8r (LMP8), GWM9r (LMP9r)	Every 12 months	1 January

Table S4.1 Reporting of monitoring data

Parameter	Emission or monitoring point/reference	Period begins
Other surface water monitoring Parameters as required by condition 3.5.1	WMP1, WMP4a and WMP5	Every 12 months 1 January

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
Surface water and/ or groundwater: Disposed of off site; Disposed of to any onsite effluent treatment plant.	Cubic metres/year
Landfill gas: combustion in flares; combustion in gas engines; Other methods of gas utilisation.	Normalised cubic metres/year

Table S4.3 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	
Air	Form Air 1 or other reporting format to be agreed in writing with Natural Resources Wales	
Controlled water	Form Water 1 or other reporting format to be agreed in writing with Natural Resources Wales	
Groundwater	Form Groundwater 1 or other reporting format to be agreed in writing with Natural Resources Wales	
Sewer	Form Sewer 1 or other reporting format to be agreed in writing with Natural Resources Wales	
Landfill gas	Form LFG 1 or other reporting format to be agreed in writing with Natural Resources Wales	
Waste Return	Waste Return Form RATS2E	
Landfill topographical surveys and interpretation	Reporting format to be agreed in writing with Natural Resources Wales	

Schedule 5 - Notification

These pages outline the information that the operator must provide.

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

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

Part A

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

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution	
To be notified within 24 hours of detection	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

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

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

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

Part B - to be submitted as soon as practicable

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

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 - Interpretation

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

“Annex I” means Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“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.

“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 Landfill Infrastructure.

“CQA Validation Report” means the final “as built” construction and engineering details 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 Landfill Infrastructure;
- Validation by a qualified person that all of the construction has been carried out in accordance with the Construction Proposals.

“D” means a disposal operation provided for in Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“emissions to land” includes emissions to groundwater.

“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.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2016 No.1154 and words and expressions used in this permit which are also used in the Regulations have the

same meanings as in those Regulations.

“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.

“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.

“hazardous waste” has the meaning given in the Hazardous Waste (Wales) Regulations 2005 (as amended).

“Landfill Infrastructure” means any specified element of the:

- permanent capping;
- leachate abstraction systems;
- leachate transfer, treatment and storage systems;
- surface water drainage systems;
- leachate monitoring wells;
- groundwater monitoring boreholes;
- landfill gas monitoring boreholes;
- landfill gas management systems;

within the site.

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

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

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

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

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

“MCERTS” means the Environment Agency’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.

“Pests” means Birds, Vermin and Insects.

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

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

“Waste code” means the six digit code referable to a type of waste in accordance with the list of wastes established by Commission Decision 2000/532/EC as amended from time to time (the ‘List of Wastes Decision’) and in relation to hazardous waste, includes the asterisk.

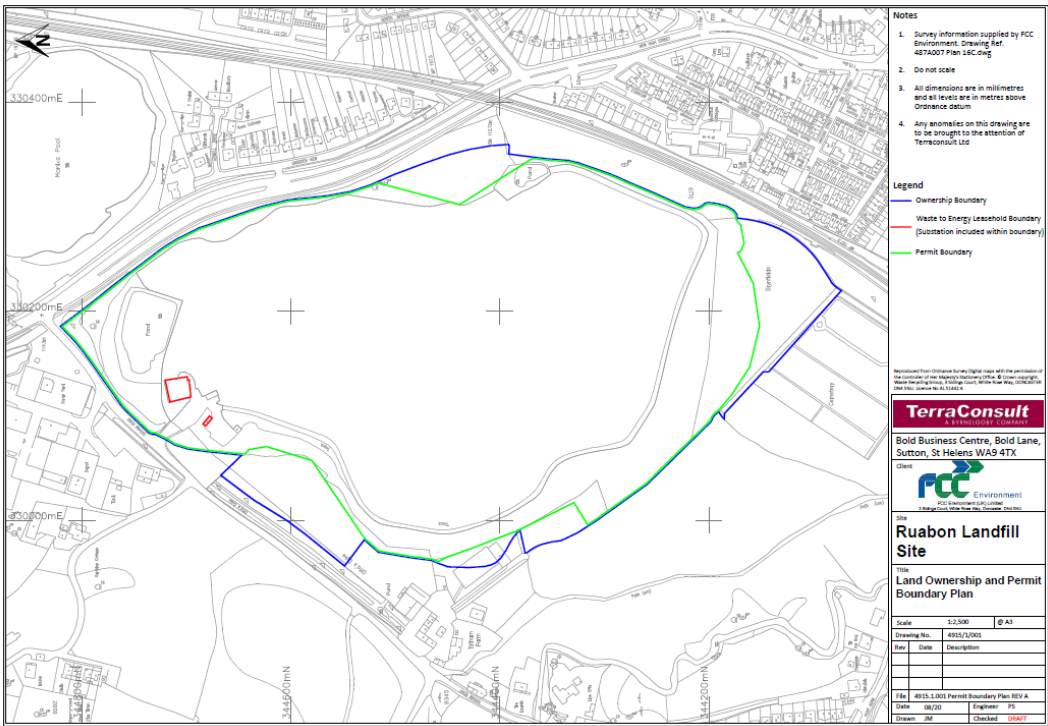
“Waste Framework Directive” or “WFD” means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste.

“year” means calendar year ending 31 December.

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

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

Schedule 7 - Site plan



END OF PERMIT

Permit Number: AB1234CD

Operator: [Operator name]

Facility: [Facility name]

Form Number: Air1 / DD/MM/YY

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

Emission Point	Substance / Parameter	Emission		Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
		Limit Value	Reference Period				
A1	Particulate Matter	20 mg/m ³	Continuous		BS EN 13284-1		
A1	Particulate Matter	20 mg/m ³	1 hour period		BS EN 13284-1		
A1	VOC as Total Organic Carbon (TOC)	20 mg/m ³	1 hour period		BS EN 12619		
A1	Hydrogen chloride	30 mg/m ³	1 hour period		BS EN 1911		
A1	Hydrogen fluoride	2 mg/m ³	1 hour period		ISO 15713		

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

Signed
(Authorised to sign as representative of Operator)

Date.....

Permit Number: AB1234CD

Operator: [Operator name]

Facility: [Facility name]

Form Number: Water1 / DD/MM/YY

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

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

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

Signed
(Authorised to sign as representative of Operator)

Date.....

Permit Number: AB1234CD

Operator: [Operator name]

Facility: [Facility name]

Form Number: Sewer1 / DD/MM/YY

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

Emission Point	Substance / Parameter	Emission		Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
		Limit Value	Reference Period				
S1	Total suspended solids	30 mg/l	For 95% of all measured values of periodic samples taken over one month		BS EN 872		
S1	Mercury and its compounds, expressed as mercury (Total Hg)	0.005 mg/l	24-hour flow proportional sample		BS EN 135006		
S1	Cadmium and its compounds, expressed as cadmium (Total Cd)	0.01 mg/l	24-hour flow proportional sample		BS 6068-2.89		

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

Signed
(Authorised to sign as representative of Operator)

Date.....

Permit Number: AB1234CD

Operator: [Operator name]

Facility: [Facility name]

Form Number: Performance1 / DD/MM/YY

Reporting of other performance indicators for the period DD/MM/YYYY to DD/MM/YYYY

Parameter	Units
Total raw material used	tonnes
mass release of oxides of sulphur per tonnes of product	Kg SO ₂ /tonnes of product
Zn releases to River Ouse per tonne of product	kg Zn/tonne of product
Cu releases to River Ouse per tonne of product	kg Cu/tonne of product

Operator's comments :

Signed
(Authorised to sign as representative of Operator)

Date.....

Permit Number: AB1234CD

Operator: [Operator name]

Facility: [Facility name]

Form Number: Groundwater1 / DD/MM/YY

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

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

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

Signed
(Authorised to sign as representative of Operator)

Date.....

Permit Number: AB1234CD Operator: [Operator name]
 Facility: [Facility name] Form Number: Particulate1 / DD/MM/YY

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

Emission Point	Substance / Parameter	Emission		Result ^[1]	Test Method ^[2]	Sample Date and Times ^[3]	Uncertainty ^[4]
		Limit Value	Reference Period				
A1	Particulate Matter	mg/m ³	Continuous		BS EN 15267-3		
A1	Particulate Matter	mg/m ³	1 hour period		BS EN 13284-1		

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

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