Bridgend Waste Facility

EPR Ref: PP3430UL

Report for 2024

Introduction

The permit was varied and reissued on the 7th May 2021 following the regulatory initiated review (Regulation 61 notice) following the publication of the revised Best Available Techniques (BAT) Reference Document (BREF) for Waste Treatment.

Condition 4.2.2 and 4.2.3 of the above permit requires the following:

4.2.2 For the following activities referenced in schedule 1, table S1.1 (A1 to A2 inclusive). 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 Resource Wales) each year. The reports shall include as a minimum:

(a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;

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

(c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.

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

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

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

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

A. Review of the results of the monitoring and assessment

Efficacy Tests

Number of Spore strips tested within Year	Number of Spore Strips that pass within Year	Pass Rate
110	110	100%

Any spore failures have been notified to the regulator as required by the permit.

Commissioning Report

The re-validation was carried out at the facility in 2024, and so was reported on during that period.

Bioaerosol Emission (Condition 3.3.1)

A summary of the results are included below. The samples were taken prior to the processing of seeded waste (control/reference samples), during the processing of the seeded waste and over two successive one-hour periods after the seeded waste had been processed.

Monitoring Location	Limit (cfu/m2 hr)	Pre dose (cfu/m2 hr)	1st hour post dose (cfu/m2 hr)	2nd hour post dose (cfu/m2 hr)	3rd hour post dose (cfu/m2 hr))
Air – sample points <10m from the treatment plant	*1000*	*<4*	*4*	*<4*	*<4*
Air – sample points >10m from the treatment plant	*300*	*<4*	*<4*	<4	<4
Surface – sample points <10m from the treatment plant	*20000*	124	210	*<154*	*<164*
Surface – sample points >10m from the treatment plant	*5000*	*<129*	<110	<161	<164
Monitoring Location		At Dosing		20 minutes after dosing	
Discharge to water	*300*	<10		<10	

The Environmental monitoring continued to demonstrate that the Microbial counts were well within the Environmental Agency Benchmarks.

Emissions to Air (Condition 3.3.1 – Effective from 17th August 2022)

Form Number: Air1 / 17/08/2022

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Uncertainty [4]
A1	Dust	5 mg/Nm3	None set	0.33mg/m3	EN 13284-1	1.1mg/m3
A1	NH3	None set	None set	2.1 mg/m3	No EN standard available	0.38mg/m3
A1	TVOC	None set	None set	72.2 mg/m3	EN 12619	1.8mg/m3
A2	Dust	5 mg/Nm3	None set	0.42 mg/m3	EN 13284-1	0.59 mg/m3
A2	NH3	None set	None set	22.7	No EN standard available	4.1mg/m3
A2	TVOC	None set	None set	1869	EN 12619	46.1 mg/m3

[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.

A. Annual production/treatment data

The performance parameters for the facility were as follows:

Annual Production / Treatment		Units
Amount of waste treated in the heat disinfection unit	6220.84	Tonnes

B. Annual performance parameters

Energy Usage

Form Number: Energy1 / 07/05/21

Energy Source	Energy Usage Quantity	Primary Energy (MWh)	Specific Usage (MWh/unit output)
Electricity *	MWh	1300	0.2 MWH/t
Natural Gas	MWh	813	0.13 MWh/t
TOTAL	-	2113	

* Conversion factor for delivered electricity to primary energy = 2.4

Operator's comments :

Water Usage

Form Number: WaterUsage1 / 07/05/21

Water Source	Usage (m^3/year	Specific Usage (m^3/unit output)
Mains water	1006 m3	0.16m3 /tonne

Operator's comments :

Performance

Form Number: Performance1 / 07/05/21

Parameter		Units
Generation of residue waste	6220.84	Tonnes
Generation of waste water	1006	m^3
Total raw material used	6220.84	tonnes

Operator's comments :