



Castle Waste Services Ltd
Cardiff Treatment Centre
Old Clipper road
Cardiff Docks
Cardiff
CF10 4LX

Your Ref: LP3439HM

Date: 31/01/2024

Mr Dale Padfield,

Annual Report for 2023 for Castle Waste Services Ltd, Cardiff Treatment Centre, Old Clipper road, Cardiff Docks, Cardiff, CF10 4LX

Please find enclosed our report and associated results for 2023 in accordance with condition 4.2 of Environmental Permit LP3439HM.

Should you have any queries or wish to discuss the matter further, please do not hesitate to contact the undersigned.

Yours faithfully,
for Castle Waste Services Ltd


Operations Director

Enc.



Castle Environmental 2022 Site Report – Cardiff – PC 4.2.2a

This report is produced to provide an overview of the site performance over the previous 12 months. The statutory reporting forms detailing annual performance are appended to this document for ease of reference. Performance is compared against previous years within this report.

The waste side of the business continues to serve a number of local and national customers. The construction side of the site, which utilises washed fines aggregate has continued to supply local customers.

The average number of staff employed across both businesses in 2023 was 18, (8 staff working on the waste facility).

Input waste volumes were below those from 2022 with the site accepting 15,72 tonnes in 2023 compared to 17,387 tonnes in 2022.

A variation to the site permit was issued in 2021. The variation was undertaken in order to align the site permit with the requirements of the Waste Treatment Bref. Castle have been working through the Improvement Conditions included within the permit. The majority of Improvement Conditions are now closed out. Outstanding points relate the sewer emissions and are subject to ongoing discussion with NRW.

Performance

Reported primary electricity consumption was very similar to 2022, 1015 MWh vs 1016 MWh.

When weighted against the total quantity of waste accepted at the site this represents an increase in consumption per tonne of waste accepted from 58.4kWh to 64.5kWh per tonne.

Over 2023 a number of projects have been undertaken and there has been long periods of time when contractors have been performing works at the site. This may have contributed to the electricity consumed at the site.

Reported primary energy from gas oil consumption is lower than the previous year. When consumption is rationalised per Tonne of waste accepted, the values (6.9 kWh/T 2023 and 7.1 kWh/T 2022) show a reduction of 3%.

The total quantity of waste removed from the site in 2022 was 6145 Tonnes which is similar to the previous year.



Water consumption for 2022 is estimated to be 3692.5m³. This value has been attained using the same assumptions as previous years. It represents a decrease from the previous year (4477.7m³). The decrease is effectively due to the reduced operation of the construction business. When expressed per tonne of waste accepted the value falls from 0.271m³/T to 0.212m³/T in 2022. It is considered that this drop may be due to the reduced number of concrete products produced over the period as water is consumed in the production process.

Water consumption data for 2023 was collected from a meter installed within the site rather than estimated as per previous years. The meter readings indicate that the methodology utilised previously underestimated water consumption. Meter readings indicate the site used 13,705m³.

Improvements

The site management systems have been subject to annual internal and external audits with no issues identified.

The site has continued to operate without the importation of raw material lime.

Bulk storage tanks 1 – 4 have been subject to shot blasting and painting over the year. Improvements have been made to the tank inspection regime at the site with inspections planned over a rolling 5 year period with the inspection regime being in accordance with a written scheme generated by a competent third party.

There have been significant improvements undertaken at the site during 2023. This has included the removal of further legacy tanks, the installation of new HDPE tanks to act as a replacement. Further to that, significant civils improvements have been undertaken within the yard 1 press house and tanker offload areas.

Continuous Improvements

Improvement works are continuing in 2024. Over this year the main project will be the installation of infrastructure to support the effluent management system and harvest rainwater to reduce consumption of potable water by the site.



Appendix Reporting forms:

WaterUsage1 / 30/01/2024 (Annual data 2023)

Energy1 / 30/01/2024 (Annual data 2023)

Performance1 / 30/01/2024 (Annual data 2023)

Permit Number: EPR/LP3439HM

Operator: Castle Waste Services Limited

Facility: Roath Dock Transfer Station

Form Number: WaterUsage1 / 31/01/2024

Reporting of Water Usage for the year 2023

Water Source	Usage (m ³ /year)	Specific Usage (m ³ /unit output)
Mains water	13,705	0.87m ³ /Tonne waste accepted
Site borehole	0	
River abstraction	0	
TOTAL WATER USAGE	13,705	0.87m ³ /Tonne waste accepted

Operator's comments :

Water consumption is measured from metering that has been installed in the process. This includes the concrete batching plant operations.

Signed [REDACTED] Date...30/01/2024.....
(authorised to sign as representative of Operator)

Permit Number: EPR/LP3439HM

Operator: Castle Waste Services Limited

Facility: Roath Dock Transfer Station

Form Number: Energy1 30/01/2023

Reporting of Energy Usage for the year 2023

Energy Source	Energy Usage Quantity	Primary Energy (MWh)	Specific Usage (MWh/unit output)
Electricity	423,065.3 kWh	1015.4 MWh	64.5 kWh/ Tonne waste accepted
Natural Gas	0	0	0
Gas Oil	11,182 Litres	108.2 MWh	6.7 kWh/ Tonne waste accepted
Recovered Fuel Oil			
TOTAL		1123.6 MWh	71.3 kWh/ Tonne waste accepted

* Conversion factor for delivered electricity to primary energy = 2.4

Operator's comments :

As of 2010 the density of Fuel/Gas oil is stated to be 0.832kg/l.
IEA/OECD states that 1 Tonne Oil Equivalent (TOE) is equal to 11.63 MWh

Signed [REDACTED] ... Date...30/01/2024...
(Authorised to sign as representative of Operator)

Permit Number: EPR/LP3439HM

Operator: Castle Waste Services Limited

Facility: Roath Dock Transfer Station

Form Number: Performance1 30/01/2024

Reporting of other performance indicators for the period 01/01/2023 to 31/12/2023

Parameter	Units
Water Usage	13,705 cubic metres
Energy Usage	1123.6 MWh (primary energy)
Total Raw Materials Used	0 Tonnes
Waste disposal and/or recovery	6041.6 Tonnes

Operator's comments:

Signed [REDACTED] Date...30/01/2024.....
(Authorised to sign as representative of Operator)