

## Compliance Assessment Report CAR\_NRW0042846

**Permit being assessed:** FP3232KG.

**For:** Cardiff East Wastewater Treatment Works CHP Facility, **held by:** Dwr Cymru Cyfyngedig

**At:** Dwr Cymru Welsh Water, Tide Fields Road, Rover Way, Cardiff, Cardiff, CF24 2RX.

**Type of assessment:** Report/Data Review,

**Reason:** Routine.

**On:** 31/12/2023.

**Parts of permit assessed:** Annual Returns .

**NRW Lead Officer:** Lewis Evans.

**Report sent to:** Keith Harris, Performance Manager, on 20/02/2024.

### 1. Summary of our findings (full details in section 4)

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR3A - Emissions and monitoring - Emissions to water, air or land	Assessed (A)	
IR4B - Information - Reporting	Assessed (A)	

Result types are explained in more detail in the 'Important Information' section below.

Total non-compliances recorded	Total non-compliance score
0	0

How we use the non-compliance score to calculate your annual fee is explained in the 'Important Information' section below.

### 2. What action is required?

No action required.

### 3. What will happen next?

Any non-compliance we have identified and recorded on this form is an offence. It can result in criminal prosecution and/or suspension or revocation of your permit.

**At this time, we do not intend to take any further action.**

This statement does not stop us from taking additional enforcement action if further relevant information comes to light or offences continue.

## 4. Details of our assessment

### Dŵr Cymru Welsh Water Cardiff East Wastewater Treatment Works CHP Facility

Permit Reference: **EPR-FP3232KG**

Dŵr Cymru Welsh Water (DCWW) submitted their annual returns on the 25<sup>th</sup> of January 2024. Within the annual returns were the following forms: Air 1 which holds the air emission testing and results, Water 1 which shows the annual water usage on site, Energy 1 which shows the electrical and natural gas usage and the Performance 1 form which shows the process information for the year.

#### Air Emissions

The table below shows the results submitted by DCWW.

Emission Point	Parameter	Limit	Result
A1	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	500mg/m <sup>3</sup>	283.95mg/m <sup>3</sup>
A1	Carbon Monoxide	1100mg/m <sup>3</sup>	1094.58mg/m <sup>3</sup>
A1	Sulphur Dioxide	340mg/m <sup>3</sup>	4.38mg/m <sup>3</sup>
A2	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	500mg/m <sup>3</sup>	494.83mg/m <sup>3</sup>
A2	Carbon Monoxide	1100mg/m <sup>3</sup>	808.16mg/m <sup>3</sup>
A2	Sulphur Dioxide	340mg/m <sup>3</sup>	12.3mg/m <sup>3</sup>
A3	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	500mg/m <sup>3</sup>	441.31mg/m <sup>3</sup>
A3	Carbon Monoxide	1100mg/m <sup>3</sup>	896.67mg/m <sup>3</sup>
A3	Sulphur Dioxide	340mg/m <sup>3</sup>	0.93mg/m <sup>3</sup>

All results shown are within the permitted limits and are therefore compliant. However, it is noted that although the results are within the limits the Carbon Monoxide at emission point A1 and NO<sub>x</sub> at emission point A2 are very close to the permitted limits. The flare emission point A7 was not tested as the operation time was less than 10% of the operated hours.

#### Water usage

Total water usage on site in 2023 was 23,408.05m<sup>3</sup>. This has dropped again from the 2022 value of 26,115.12m<sup>3</sup>.

#### Energy 1

Primary Electrical usage on site for 2023 was 42,365,712MWh. The site also used 20,108MWh of Natural Gas in 2023. There was no use of Gas Oil or Recovered Fuel Oil.

#### Performance 1

Parameter	Result
Power output - heat	18,581 MWh
Power output - electricity	17,652.38 MWh
Energy Efficiency (MWh/m <sup>3</sup> )	0.005 MWh/m <sup>3</sup> biogas
Electrical energy exported from the grid (MWh)	1,944.5384 MWh
Electrical energy drawn from the grid (MWh)	16,086,190.2 MWh
Water Usage	23,408.05 m <sup>3</sup>
Water Generated	0 m <sup>3</sup> /MWh
Energy usage	16,086 MWh
Generation of Residues (tonnes)	11,152 tonnes
Generation of wastewater (m <sup>3</sup> )	8,111,046.9 m <sup>3</sup>
Operational time of waste gas burner (emergency flare) (% of operational time)	4.77% of operational time
Total raw material used (tonnes)	21,867 tonnes

DCWW started 2023 with 1 of the engines operating at full capacity while the other two engines were partially worn from the increased siloxane levels during the pandemic. In May, DCWW carried out an interim service and the performance of the engines vastly improved. Once this was resolved the engines were capable of dealing with the site's throughput. The site is currently upgrading the biogas feed to the engines with an additional filtration and chilling systems which will hopefully improve performance in 2024.

#### **Waste Returns**

Waste returns were submitted to NRW on time. The site received 29,878 tonnes of material in 2023, all EWC that are permitted by the permit were accepted.

**END.**

If you have any queries about this report, or to discuss completion of any actions, please contact the NRW Officer named above.

## Important information

### Legal status of this report

Your permit is issued to you under the Environmental Permitting Regulations. You have a responsibility to comply with the conditions of your permit and prevent pollution/harm of the environment. You must also ensure that you comply with any other relevant legislation that may apply to your site's operations.

This report explains the findings of our assessment and any action you are required to take. We categorise non-compliance using our guidance for assessing non-compliance at regulated sites.

When we find potential non-compliance/s we will normally give you advice on how to maintain compliance.

To correct non-compliance, we may:

- require you to take specific actions
- issue a notice
- review the conditions of your permit.

Any advice and guidance we give will be without prejudice to any other enforcement response that we consider may be required.

### Assessment results and non-compliance categories (used in section 1):

Assessment result	Description
Assessed (A)	Assessed or assessed in part, no evidence of non-compliance found
Action only (X)	Action only relating to the activity assessment
Ongoing (O)	Ongoing non-compliance, not scored

Non-compliance category	Description	Score
C1 Major	Potential to have a major, serious, persistent and/or extensive impact or effect on the environment, people and/or property	60
C2 Significant	Potential to have a significant impact or effect on the environment, people and/or property	31
C3 Minor	Potential to have a minor or minimal impact or effect on the environment, people and/or property	4
C4 No environmental impact	Non-compliance at a regulated site that cannot foreseeably have any impact on the environment, people and/or property	0.1

### How we use assessment scores

The number and severity of non-compliances recorded in a year will affect your annual subsistence fee the following year. A non-compliance factor is added to your site's Operator

Performance Risk Appraisal (OPRA) score when we calculate your fee to reflect the additional resource we use to assess permit compliance.

**If your assessment result in Section 1 is suspended, what does this mean?**

In line with our guidance, we may suspend scores for up to six months to allow time for remedial action to be taken. Suspended scores will be re-instated if the action is not completed.

**Full list of Industry compliance criteria (used in section 1 and 2):**

**1. Management**

- IR1A – General management
- IR1B – Finance (only applicable to Landfill)
- IR1C – Energy efficiency
- IR1D - Efficient use of raw materials
- IR1E - Avoidance, recovery and disposal of wastes produced by the activities
- IR1F - Multiple operator installations

**2. Operations**

- IR2A – Permitted activities
- IR2B – The site
- IR2C – Operating techniques
- IR2D – Technical requirements
- IR2E – Improvement programme
- IR2F – Pre-operational conditions
- IR2G – Landfill engineering (only applicable to Landfill)
- IR2H – Waste acceptance (only applicable to Landfill)
- IR2I – Leachate levels (only applicable to Landfill)
- IR2J – Closure and aftercare (only applicable to Landfill)
- IR2K – Landfill gas management (only applicable to Landfill)

**3. Emission and Monitoring**

- IR3A – Emissions to water, air or land
- IR3B – Emissions of substances not controlled by emission limits
- IR3C – Odour
- IR3D – Noise and vibration
- IR3E – Monitoring
- IR3F – Pests
- IR3G – Air quality management plans
- IR3H – Monitoring for the purposes of the Industrial Emissions Directive (this heading includes Large Combustion Plants)
- IR3I – Fire

**4. Information**

- IR4A – Records
- IR4B – Reporting
- IR4C – Notification

**Enforcement response**

Any non-compliance with a permit condition is an offence and we may take legal action against you. Action we take can include prosecution, serving a notice on you and/or

suspension or revocation of your permit. See our Enforcement and Sanctions Guidance for further information.

### **Data protection notice**

You should make sure that anyone named in this report knows that the information it contains will be processed by Natural Resources Wales to fulfil its regulatory and monitoring functions and to maintain the relevant public register(s).

We may also use and/or disclose the report in connection with:

- offering or providing you with our literature or services relating to environmental matters
- consulting with the public, public bodies and other organisations (e.g. Health and Safety Executive, local authorities) on environmental issues
- carrying out statistical analysis, research and development on environmental issues
- providing public register information to enquirers
- investigating possible breaches of environmental law
- assessing customer service satisfaction and improving our service
- Freedom of Information Act or Environmental Information Regulations requests.

We may also pass it on to our agents or representatives to do these things on our behalf.

### **Disclosure of information – this report will be available to view on-line**

If you think this report contains commercially confidential information that should not be placed on our public register, you must contact your local Natural Resources Wales office within **fifteen working days** of receiving this report, using the contact details in the accompanying email or letter. You must give a full explanation of why it should not be added to our public register, including specifying which information is commercially confidential. We will assess your request and respond to you within twenty working days to let you know if we agree to your request.

### **What do I do if I disagree with the report or have a complaint?**

If you disagree with this compliance assessment report, you should contact the lead officer without delay to discuss your concerns.

If you are unable to resolve the issue with the lead officer or their line manager you should contact our Customer Contact team on 0300 065 3000 (Monday to Friday 08:00 to 18:00), or email [enquiries@naturalresourceswales.gov.uk](mailto:enquiries@naturalresourceswales.gov.uk) for details of how to raise your dispute further through our Complaints and Commendations procedure.

If you are dissatisfied with our response, you can contact the Public Services Ombudsman for Wales by phone on 0300 7900203 or by email at [ask@ombudsman.wales](mailto:ask@ombudsman.wales)

### **Welsh Language Standards**

We are committed to establishing Natural Resources Wales as a naturally bilingual organisation. We will provide compliance reports in your preferred language.