

Compliance Assessment Report CAR_NRW0040901

Permit being assessed: BP1772IZ.

For: Poeton Cardiff, held by Poeton (Cardiff) Limited

At: Poeton (Cardiff) Ltd, 283 Penarth Road, Cardiff, Cardiff, CF11 8UL.

Type of assessment carried out: Report/Data Review, Reason: Routine.
On 31/12/2022.

Parts of permit assessed: Monitoring Data, Operating Procedures

NRW Lead Officer: Dale Padfield.

Report sent to: Jason Hamling, HSE & Facilities Manager on 06/01/2023.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
E4 - Emissions - Sewer	C3 Minor	3.1.2
E4 - Emissions - Sewer	C3 Minor	3.1.2
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	C3 Minor	4.3.1
C2 - General Management - Management system and operating procedures	Action only (X)	
B5 - Infrastructure - Plant and equipment	Action only (X)	

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

Total number of non-compliances recorded	Total non-compliance score
3	12

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?

Criteria	Action needed	Complete by
E4	Ensure ETP is operating within the required parameters at all times.	Already completed
E4	Ensure ETP is operating within the required parameters at all times.	Already completed
G4	Ensure NRW are notified of any breach of a permit condition or ELV.	Already completed
C2	Please see Actions 1, 2 and 4 within main body of report.	13/01/2023
B5	Please see action 3 in the main body of the report.	31/01/2023

Action criteria codes are listed in the 'Important information' section below.

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

Poeton (Cardiff) Limited

Permit – EPR/BP1772IZ

The purpose of this compliance assessment report (CAR) is to detail the response to actions issued in CAR_NRW0040620 and via email on the 05th of December 2022. The CAR also details concerns raised to Natural Resources Wales (NRW) by Dŵr Cymru Welsh Water (DCWW) regarding the results of spot samples of the effluent discharge taken in October and November 2022 along with several non-compliances exposed through data provided by DCWW.

On the 29th of November 2022 DCWW contacted NRW raising concerns with Poeton's effluent discharges to sewer. Sampling conducted by DCWW on the 19th of October and 14th of November 2022 revealed high levels of Cadmium (Cd) and Chromium (Cr) and low pH. The spot and composite samples taken on the 14th of November showed that both Cd and Cr were in breach of the permitted emission limit values (ELV's). However, the permit ELV's are based on a weekly composite sample, on this occasion the composite sample was not a full weekly sample. As such, no score will be issued for the elevated results due to sample not being truly representative on the permit requirements. However, the permitted ELV for pH is a daily minimum of 6 and maximum of 11. On the 19th of October 2022 a pH of 2.2 was recorded. On the 14th of November 2022 a pH of 1.3 was recorded at 10:40 and a pH of 2.6 recorded at 11:35.

Effluent with a low pH is likely to have a minimal environmental impact, with the pH balancing as mixing occurs in the larger volume of effluent within the sewer network and sewage treatment works. The primary concern with operating at low pH is the plant's inability to effectively remove metals from solution. The current ETP is that of hydroxide precipitation and is based on the foundation that metal hydroxides become increasingly insoluble as you increase the pH (hydroxide ion concentration) of the water. Once the metals precipitate and form solids, they can then easily be removed, and the water, now with low metal concentrations, can be discharged. Such treatment is a well understood and established technique.

During abnormal operating conditions such as decreasing pH where the hydroxide concentration decrease rapidly, the metals become increasingly soluble within the wastewater and consequently pass through the remaining treatment plant and into the final discharge effluent. This results in higher measured metal concentrations within the final effluent which has the potential to have environmental impacts.

NRW record breaches on a quarterly basis. For pollutant ELV's, multiple breaches of a single parameter that occur in the same quarter will be consolidated into a single score, therefore, for the pH breaches recorded

on the 19th of October and 14th of November the following minor non-compliance score will be issued.

Non-compliance: A category 3 minor non-compliance is given for exceeding the emission limits for pH on the 19th of October and 14th of November 2022. Permit condition 3.1.2. **It is an offence under Regulation 38(2) of the Environmental Permitting Regulations (consolidated 2016) to breach a permit condition or emission limit. Non-compliance score CCS3.**

DCWW sampling data also highlighted a pH breach on the 16th of June 2022, with a recoded value of pH 4.7. As this pH breach occurred in July which falls in quarter 3, the following minor non-compliance score will be issued.

Non-compliance: A category 3 minor non-compliance is given for exceeding the emission limits for pH on the 16th of June 2022. Permit condition 3.1.2. **It is an offence under Regulation 38(2) of the Environmental Permitting Regulations (consolidated 2016) to breach a permit condition or emission limit. Non-compliance score CCS3.**

The pH result from the 16th of June 2022 was not reported in Poeton's biannual sewer return form for the January to June reporting period. No Schedule 5 was received for any of the forementioned pH breaches until one was requested by NRW. Poeton were asked to explain why they had failed to identify the pH breaches and submit a schedule 5, the following response was received.

There seems to have been a miscommunication on pH results due to staff changes in the Lab and information not being forwarded over or filed when received. This should now be resolved as we have requested that DCWW send the reports to HSE & Facilities Manager, Group Quality Manager & Senior Lab Technician so these are filed properly and not missed.

NRW are pleased that Poeton have resolved this issue however, records show that a similar situation occurred in 2019, whereby low pH results were not reported to NRW and a schedule 5 notification had to be requested. In August 2019 Poeton stated that a new communication policy with regards to how results were handled was put into place. The process of receiving and reviewing sample results submitted by DCWW should already be well established and procedures should be capable of withstanding changes of staff. A non-compliance score will be issued for failing to notify NRW of a breach of a permit condition.

Non-compliance: A category 3 minor non-compliance is given for failing to notify NRW of the forementioned pH ELV breaches. Permit condition 4.3.1. **It is an offence under Regulation 38(2) of the Environmental Permitting Regulations (consolidated 2016) to breach a permit condition or emission limit. Non-compliance score CCS3.**

Poeton reported the following root cause of the pH issue that occurred on the 14th of November.

The cause was established to be a case of high acid dosing. This was found to be due to a faulty solenoid valve with an intermittent fault that was causing it to stick open every now and then. This has now been replaced.

NRW are pleased that Poeton promptly identified and rectified the issue. Although the faulty valve was identified to be the cause of the low pH issue on the 14th of November 2022 the true root cause is likely the same as identified in CAR_ NRW0040620. Whereby the breach is a result of a lack of operational control over the ETP and inadequate procedures to maintain control. As stated in CAR_ NRW0040620, there is no

automation on the ETP nor were there any alarms to notify the operator of a potential issue. The ETP was subject to a single daily check conducted in the morning, this meant the ETP could be operating out of specification for a significant amount of time before corrections were made. This can be seen when comparing Poeton's sampling data with DCWW's spot sampling data. On the 19th of October 2022 Poeton recorded a pH value of 8.74 between 08:00 and 08:30, DCWW conducted spot sampling at 10:22 and recorded a pH value of 2.2. A similar situation occurred on the 14th of November 2022, where Poeton recorded a pH value of 10.77 between 08:00 and 08:30, DCWW conducted spot sampling at 10:48 and recorded a pH value of 1.3. These examples suggest that within 2 to 3 hours of Poeton's daily check the ETP had drifted out of the correct operating range, demonstrating that the procedures in place were not sufficient. In this instance root cause won't be scored as a score has already been applied and captured in CAR_NRW0040620.

The actions issued in CAR_NRW0040620 and the responses received (detailed below) should provide more control over the ETP. However, Poeton will need to maintain this control and demonstrate that these updated procedures are adequately maintaining control.

Actions and responses from CAR_NRW0040620

Actions from CAR_NRW0040620 are detailed below for ease of reference.

Action 1: Poeton 28th October 2022. Please provide NRW with an update regarding the alarm systems for the ETP, and whether Poeton have deemed these financially viable. Due 15th December 2022.

Response – Poeton have installed an alarm system on the ETP, with the control situated in the lab. This will notify Poeton staff if the pH drifts out of range, photo received as evidence. **Action Complete**, but please see New Action 1 below requesting more information.

Action 2: Poeton 28th October 2022. NRW need to be assured that the treatment plant is being operated within its required operational parameters at all times. Consequently, please develop and implement a written procedure for continuously operating and checking the ETP. A check sheet should also be created to log these checks. The procedure should detail the required checks, actions to be taken in the event of an issue being discovered, adequate frequency of checks, who has responsibility for conducting the checks. Please provide copies of these new written procedures with justifications for your appropriate control measures by 15th December 2022.

Response – Poeton have implemented and updated the EPPI 03 and PCD 054 procedures. EPPI 03 references the various procedures for calibration, emergencies, breaches and training for the ETP operation, as well as the detailing the responsible persons /roles for the various ETP tasks. Appendix 1 of PCD 054 contains the new check sheet developed to monitor the ETP and sample collection sign off, with appendix 2 containing a 'trouble shooting' table detailing various scenarios and the actions to be taken to rectify potential issues.

Poeton have increased their one daily check to two daily checks, once in the morning and once in the afternoon. NRW request that Poeton implement a more frequent checking regime for an initial four-week period. As the ETP has been seen to drift out of specification within a 3-hour window, an initial increased frequency of checking should be implemented to assess the effectiveness of the new procedures and new alarm system. This frequency may then be relaxed providing a lower frequency can be justified and control of the ETP is maintained. Please see New Action 2 below.

Action 3: Poeton 28th October 2022. Poeton to develop and implement a new sampling procedure to replace the current procedure that has now been deemed unsuitable. The procedure needs to consider the sample preservation requirements of the different parameters that are monitored as part of the permit. Consideration needs to be given on how greater quality control will be achieved when collecting the weekly composite sample, and the procedure should be based on best practise guidance. The design and location of the tank also needs to be assessed with regards to the current open-top design and temperature control. Also include the requirement to agitate the composite sample before extracting the final sample. Please send the new sampling procedure for NRW to review before implementing any changes on site. **Due 15th December 2022.**

Response – The new sampling regime is detailed in PCD 054. Poeton are now collecting, preserving and appropriately storing daily samples, which are then combined to satisfy the weekly composite requirements. This approach should provide greater confidence in the quality and reliability of monitoring data. This new sampling approach is accepted, however, Poeton still need to address the open-top design of the sample collection tank. Please see New Action 3 below.

Action 4: Poeton 28th October 2022. Please provide details on the composite sample holding tank and sampling pot, what are they made of? Do they meet the required specifications with regards to the quality assurance of the samples? **Due 15th December 2022.**

Response – Poeton have stated that both the composite sample holding tank and the sample collection pots are constructed of polypropylene, an acceptable material as stated in ISO 5567-3. **Action Complete**

Action 5: Poeton 28th October 2022. Poeton to implement a cleaning procedure for the sample holding tank and amend the cleaning procedure for the sample pot based on best practice guidance. **Due 15th December 2022.**

Response – The cleaning procedure is detailed in PCD 054, the procedure now includes a wash with detergent, rinse and acid bath soak. This procedure satisfies the best practise requirements. **Action Complete.**

Action 6: Poeton 28th October 2022. Poeton to develop and implement a sign-off sheet to show that the sample holding tank has been emptied and cleaned following sample extraction. **Due 15th December 2022.**

Response – New sign off sheet is detailed in appendix 1 of PCD 054. **Action Complete.**

Action 7: Poeton 28th October 2022. Please provide information regarding the MCERTS status of the effluent flow meter, effluent pH meter and the composite sampler system. Please include any relevant certification and inspection reports. **Due 15th December.**

Response – Poeton supplied service reports for the routine inspection, calibration and maintenance of the ETP equipment. An anomaly was discovered with the effluent discharge volumes. The volumes recorded between the two service reports, from July and December indicated that a total of 92,863 m³ of effluent had been discharged. Poeton clarified that the service engineer had identified an error with the sensor, which has since been replaced. No information has been submitted on the MCERTS status of the equipment. Please confirm if the equipment is certified to MCERTS or meets the MCERTS standard. Please see New Action 4 below.

Action 8: Poeton 28th October 2022. With regards to **CAR Form CAR_NRW0039747 21/04/2022**. Please ensure details of the degraded pits, and subsequent potential for contamination is captured in the site closure plan. It's good practice to ensure the site closure plan is updated throughout the lifetime of the permit. **Due 15th December.**

Response – Copy of site closure plan received, with amended section detailing the degraded pits. **Action complete.**

Actions from email sent on the 5th of December 2022

Action 1; 5th of December 2022: Poeton to supply the data from the continuous pH monitoring probe covering the period from the 01/01/2022 to the 30/11/2022. Please provide the data in an excel format if possible. **Due 15th of December 2022.**

Response - The data for the pH monitoring was received, however as stated by Poeton, although the pH is continuously monitored the data is not continuously logged, the data provided was the daily reading taken and logged by Poeton. **Action complete.**

Action 2; 5th of December 2022: Poeton to submit Schedule 5 notifications for the three pH ELV breaches. **Due 9th of December 2022.**

Response- Schedule 5 notification received for the three identified pH breaches. **Action complete.**

Action 3; 5th of December 2022: Investigate why NRW were not informed of the pH breaches, update or implement procurers to prevent a re-occurrence. **Due 15th of December 2022.**

Response – Poeton stated that a miscommunication of results and changes in staff led to this reporting error. Poeton have updated their data distribution list with DCWW as forementioned in this report. **Action complete.**

NRW are pleased with the implementation of new procedures for the effluent sampling and operation of the ETP, Poeton will now need to demonstrate that these procedures can adequately maintain control of the ETP. As the plant is run on a continuous basis it needs to operate within the specified parameters on a continuous basis. To ensure compliance is being maintained, NRW will conduct unannounced visits to check that the plant is operating as required. If control of the ETP is not maintained NRW will consider enforcement action.

New Actions

New Action 1 - 06th of January 2023: Please provide information with regards to what pH levels trigger the alarm system and are any records maintained of alarm events? **Due 13th of January 2023.**

New Action 2 - 06th of January 2023: Please implement a more frequent checking regime for an initial four-week period, to ensure the new procedures and alarm system are effective. Poeton may find it useful to identify any trends within the check sheet logs to help determine an appropriate frequency of checks after this period. **Due 13th of January 2023.**

New Action 3 - 06th of January 2023: The open top design of the sample collection tank needs to be addressed. Please install a cover or lid on the composite sample holding tank. **Due 31st of January 2023.**

New action 4 - 06th of January 2023: Please confirm if the equipment is certified to MCERTS or meets the MCERTS standard. **Due 13th of January 2023.**

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.

What are suspended scores?

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 and Waste action criteria (used in section 1 and 2):**A: Permitted activities**

- A1 Specified by permit

B: Infrastructure

- B1 Infrastructure – Engineering for prevention and control of emissions
- B2 Infrastructure – Closure and decommissioning
- B3 Infrastructure – Site drainage engineering (clean and foul)
- B4 Infrastructure – Containment of stored materials
- B5 Infrastructure – Plant and equipment

C: General management

- C1 General management – Staff competency/training
- C2 General management – Management system and operating procedures
- C3 General management – Materials acceptance
- C4 General management – Storage, handling, labelling and segregation

D: Incident management

- D1 Incident management – Site security
- D2 Incident management – Accidents, emergency and incident planning

E: Emissions

- E1 Emissions – Air
- E2 Emissions – Land and groundwater
- E3 Emissions – Surface water
- E4 Emissions – Sewer
- E5 Emissions – Waste

F: Amenity

- F1 Amenity – Odour
- F2 Amenity – Noise
- F3 Amenity – Dust/fibres/particulates and litter
- F4 Amenity – Pests/birds and scavengers
- F5 Amenity – Deposits on road

G: Monitoring and records, maintenance and reporting

- G1 Monitoring and records, maintenance and reporting – Monitoring of emissions and environment
- G2 Monitoring and records, maintenance and reporting – Records of activity, site diary/journal/events
- G3 Monitoring and records, maintenance and reporting – Maintenance records
- G4 Monitoring and records, maintenance and reporting – Reporting and notification to Natural Resources Wales

H: Resources efficiency

- H1 Resource efficiency – Efficient use of raw materials
- H2 Resource efficiency – Energy efficiency

Enforcement response

Any permit condition non-compliance 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 20 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 – 18:00), or email 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

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.