

Compliance Assessment Report CAR_NRW0041525

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: Site Inspection, Reason: Routine.

On 03/02/2023 between 09:30 and 10:30.

Parts of permit assessed: Site Inspection - ETP operation

NRW Lead Officer: Dale Padfield, accompanied by Geraint Harris.

Report sent to: Jason Hamling, HSE & Facilities Manager on 10/03/2023.

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
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	C3 Minor	4.1.3
C2 - General Management - Management system and operating procedures	C3 Minor	1.1.1

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	Please see Action 2 in main body of report.	30/04/2023
G4	Please see Action 1 in main body of report.	07/04/2023
C2	Please see Action 1 and Action 3 in main body of report.	07/04/2023

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

EPR/BP1772IZ

The purpose of this compliance assessment report (CAR) is to detail non-compliances with emission limit values (ELVs) for site process effluent releases to sewer, review responses to actions issued in CAR_NRW0040901 and capture correspondence with regards to the planned new cadmium processing line.

On the 27th of January NRW received an email from Dwr Cymru Welsh Water (DCWW) raising further concerns over Poeton's control over their effluent treatment plant (ETP). Results from sampling conducted by DCWW on the morning of 16th of January 2023 revealed both pH and chromium to be in breach of DCWWs effluent consent limits, subsequently the pH also breached the EPR permit ELV.

On the 3rd of February 2023 officers Dale Padfield and Geraint Harris conducted an unannounced visit to the Poeton facility to assess Poeton's operation of the ETP. Upon arrival the ETP was operating within the correct ranges, with the dosing tank pH seen to be within the expected range. Poeton were asked to provide evidence of their newly implemented check sheets. Poeton's HSE manager Jason Hamling escorted NRW officers to the on-site laboratory, where records of the ETP checks are held electronically. Upon reviewing the ETP check sheets a pH ELV breach was identified to have occurred on the afternoon of the 16th of January 2023, with a pH value of 2.98 being recorded. As the effluent is discharged to DCWW foul sewer the negative environmental impact is considered low, as such the following minor non-compliance score will be issued.

Non-compliance: A category 3 minor non-compliance is given for exceeding the emission limits values for pH on the 16th of January 2023. 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.**

Poeton failed to provide notification of these breaches, as required by permit condition 4.3.1. When questioned, Poeton stated that DCWW had not made them aware of the breaches on the morning of the 16th of January and had not yet received the spot sampling results from DCWW. For the internally recorded pH value on the afternoon of the 16th of January, the HSE manger stated that staff had not informed him of the low pH result, and he was unaware a breach had occurred. Due to the low environmental impact the following minor non-compliance will be issued for the notification failure.

Non-compliance: A category 3 minor non-compliance is given for failing to notify NRW of the pH ELV breaches that occurred on the 16th of January 2023. 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.**

There appears to be a reoccurring pattern of non-compliances, whereby effluent released to sewer has breached the permitted ELVs and the operator has failed to provide NRW with notification of these permit breaches.

Previous actions issued, whereby Poeton were asked to address the notification failings have not been successful in resolving this issue. Previously it was stated that correspondence issues between Poeton and DCWW, with regards to who receives and reviews the sampling results, was highlighted as the area that required attention. The most recent notification failure suggest that Poeton need to implement more robust procedures internally, to ensure non-compliances are identified and actioned appropriately. This pattern of notification failures suggests the root cause is with the management system. The management system should identify the regulatory reporting requirements and there should be standard operating procedures (SOP's) in place to ensure reporting requirements are met. The overall environmental impact of the management failure on this occasion has been low, therefore the following minor non-compliance will be issued.

Non-compliance: A category 3 minor non-compliance is given for failure of the management system to adequately implement the regulatory reporting requirements. Permit condition 1.1.1. **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.**

Action 1 - Poeton – 10th of March 2023. Poeton to review their internal communication procedures to ensure ELV exceedances are reported to the relevant staff without delay. Consideration should be given to liaising with DCWW, to ensure early identification and notification of any issues identified when they are on site conducting the monthly spot sampling. Please provide NRW with the conclusion from the review and any associated SOP's. **Due 07th Of April 2023.**

Beyond the notification issues, Poeton need to the address the reoccurring ELV breaches as these pose a negative environmental impact. As stated in compliance report CAR_NRW0040901, out of specification pH will likely have minimal environmental impact, however it indicates a loss of control over the ETP, resulting in the ETP being ineffective at removing the metals of concern from the final discharge. Cadmium and chromium are both identified as priority pollutants in the Environmental Quality Standards Directive (EQSD) due to the significant risk they pose to or via the aquatic environment and their release must be minimised to a level as low as is reasonably practicable. A well designed and operated ETP would be more than capable of achieving cadmium levels below 0.05 mg/l and chromium levels below 0.15 mg/l, significantly lower than the concentrations that have been recorded at Poeton since April 2022.

It is appreciated that Poeton have designs for a new ETP, which are currently under review for approval by Poeton's board of directors. Taking into account the time for sourcing materials, installing, commissioning and the time taken for a permit variation to be applied for and issued (which would need to be in place before work could begin). There could be a considerable amount of time before a new ETP is operational, during this period Poeton will need to ensure that their current ETP is operated appropriately, maintaining compliance with the permit ELVs at all times.

During the visit on the 3rd of February 2023, it was noted that the pH alarm system for the neutralisation tank was being frequently triggered, with multiple activations witnessed by NRW within a short period of time. The lab technician stated that sometimes the alarm would sound every few seconds, due to the frequency of alarm activations no alarm event log was being maintained. It was noted that the alarm set points for activation at the time of the visit were pH 6 and pH 11, these pH values are the upper and lower limits defined by the EPR permit and DCWW trade effluent consent. NRW suggested that the trigger points be re-set to pH 7 and pH 10, allowing the operator more time to make the required adjustments to the pH before the effluent leaving the neutralisation tank is in breach of the permitted values.

The frequency of alarm activations raises concerns, it suggests that there is considerable variation in the influent pH. As there is no automation on the ETP, sodium hydroxide dosing for the neutralisation tank requires manual adjustment to ensure the correct pH range is maintained.

In general, even with automation, ETPs operate most effectively when reasonably constant conditions of certain parameters are maintained, such as pH, hydraulic load (or flow rate) and containment load/concentrations. To achieve reasonably constant conditions, the use of equalisation or balance tanks are used. The use of an equalisation tank provides a means to buffer short term variations arising from different influent streams, allows mixing of different influent streams, providing homogenisation to the effluent which can then be released at a steady flow rate to further treatment steps. Homogenising the effluent results in greater control of the treatment steps downstream and mitigates the impacts of short-term variations in the influent quality. Ultimately this could lead to overall improved efficiency of the ETP, resulting in improved quality of final discharge effluent and greater efficiency in the use of treatment chemicals. Environmental benefits would be seen from lower emissions of pollutants and reduced use of raw materials (such as treatment reagents) through increased efficiency of their use, this may also result in lower operating costs for the operator.

NRWs understanding is that the current effluent treatment plant employed at Poeton does not have buffering or equalisation capability. Currently all influent streams (cadmium pit, General plating and NDT swill water, anodising swill water, zinc and nickel complexant treatment tank) all merge in the neutralisation tank. It was witnessed that the lab technician had to frequently leave the lab to adjust the sodium hydroxide dosing, even with this constant supervision, the neutralisation tank was frequently dropping out of specification. The high frequency of alarm activations suggests significant pH variability within the neutralisation tank. If the influent entering the neutralisation tank has a highly variable pH and the sodium hydroxide dosing is set at a fixed rate, it would suggest that the dosing will only be partially effective at maintaining the pH within the correct range.

When questioned, Poeton were unsure what the average pH of each influent stream was, it is suggested that Poeton conduct an in-depth investigation to determine the conditions of each influent stream. Knowing what the parameters (pH, flow, concentration of pollutants) are of each stream will allow Poeton to make informed decisions when operating the ETP. Furthermore, some balancing of effluent may partially be achieved through management techniques such as planning of production activities. Knowing which operations or combination of operations may cause issues with the ETP or which will aid in the function of the ETP should result in greater ETP control.

Action 2 – Poeton 10th of March 2023: Poeton to determine the feasibility of installing a balancing tank to the ETP. If this is deemed unfeasible due to the new ETP being approved, then Poeton should investigate alternative means to achieve steady conditions within the neutralisation tank. Determine the average parameter conditions for each influent stream. Determine which on site operations cause the high variability in effluent parameters and assess a means to control effluent quality through work-load planning. Please provide NRW with the results of the investigation and a plan detailing how Poeton intend on achieving greater control over the ETP and final effluent discharge. **Due 30th Of April 2023.**

Actions and Responses From Compliance Report CAR NRW0040901.

The actions issued in CAR_NRW0040901 are detailed below for ease of reference. Poeton's response was

received on the 10th of January 2023.

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.

Response:

New action 1 – 06th of January 2023. Poeton stated that the pH alarm is triggered at pH 6 and pH 11. As previously stated within this report, Poeton were advised to reconfigure the alarm set points to pH 7 and pH 10, to allow more time to make adjustments before out of specification effluent is released from the dosing tank. **Please confirm if this has been completed.** As stated, Poeton may find it beneficial to maintain an alarm event log, this could be cross referenced with site operations to identify any trends between alarm activations and any operation or combination of operations.

New action 2 – 06th of January 2023. A copy of the updated check sheet was received, Poeton implemented an additional mid-day check, resulting in a total of three checks each day. **Complete.** Given the frequency of alarm events witness during NRW's visit, please see action 3 below.

New action 3 – 06th of January 2023. The composite sampling tank is now fitted with a lid, a photo was received to evidence this action, it was also witnessed during NRW's visit. **Complete.**

New action 4 – 06th of January 2023. Equipment confirmed to be certified to MCERTS. **Complete**

Action 3 – Poeton 10th of March 2023: Given the susceptibility of the neutralisation tank to drift out of the correct operating range, what frequency of checks are Poeton currently using or intend to use going forward? **Due 07th Of April 2023.**

Additional Cadmium Plating Line.

On the 25th of January 2023 an email was received from Poeton stating that the company had won some additional work. This which would require an additional cadmium plating line to be installed at the installation, Poeton asked if they were able to go ahead with their plans.

A reply was sent to Poeton on the 1st of February 2023. The query was raised with NRW's installation permitting team who stated that the additional cadmium plating line would be subject to a permit variation. As such, Poeton will need to apply for a permit variation and the variation will need to be in place before an additional cadmium line is installed.

It was also noted that Poeton would need to demonstrate control over their ETP operation before a permit variation would be granted. An additional plating line will result in generation of additional effluent requiring treatment. Currently Poeton are regularly breaching the ELVS to sewer, additional effluent passing through the ETP may exacerbate this issue.

If Poeton decide to go ahead with the newly designed ETP, this will also require a permit variation. Poeton are advised to consolidate these variations, as this will save time and cost of varying the permit. Please also note that the way in which NRW charge for permit variations will be changing in April 2023, more details on this can be found on our website.

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.