

Compliance Assessment Report

Report ID:
CAR_NRW0026576

This form will report compliance with your permit as determined by an NRW officer

Site	SWANSEA STW FABIAN WAY SWANSEA ,	Permit Ref	BP0236601			
Operator/Permit holder	DWR CYMRU CYFYNGEDIG					
Regime	WaterQuality					
Date of assessment	18/07/2016	Time in	13:30	Out	16:00	
Assessment type	Site Inspection					
Parts of the permit assessed	Works Operation					
Lead officer's name	Bennett, Sarah					
Accompanied by						
Recipient's name/position	Kate Howard/ Catchment Manager	Date issued	04/11/2016			

Section 1 – Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations or the licence under the Water Resources Act 1991 as amended by the Water Act 2003. A detailed explanation is captured in "Compliance Assessment Report Detail" (Section 2) and any actions you may need to take are given in the "Action(s)" (section 4). This summary details where we believe any non-compliance with the permit has occurred, the relevant condition and how the non-compliance has been categorised using our Compliance Classification Scheme (CCS). CCS Scores can be consolidated or suspended where appropriate, to reflect the impact of some non-compliances more accurately. For more details of our CCS scheme, contact your local office.

Permit conditions and compliance summary	CCS Category	Condition(s) breached
A1 - Specified by permit	A	
C2 - General Management - Management system and operating procedures	A	
KEY: See Section 5 for breach categories, suspended scores will be indicated as such. A = Assessed or assessed in part (no evidence of non-compliance), X = Action only, O = Ongoing non-compliance, not scored.		

Number of breaches recorded	0	Total compliance score (see section 5 for scoring scheme)	0
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If the Number of breaches recorded is greater than zero, please see Section 3 for our proposed enforcement response

Section 2 – Compliance Assessment Report Detail

This section contains a report of our findings and will usually include information on:

- The part(s) of the permit that were assessed (eg. Maintenance, training, combustion plant, etc)
- Where the type of assessment was 'Data Review' details of the report/results triggering the assessment
- Any non-compliances identified
- Any non-compliances with directly applicable legislation
- Details of any multiple non-compliances
- Information on the compliance score accrued inc.
- Details of advice given
- Any other areas of concern
- Any actions requested
- Any examples of good practice
- A reference to photos taken

This inspection covered both the final effluent permit BP0236601 and the settled storm permit BP0236602.

The purpose of this visit was to inspect the improvement scheme recently completed at Swansea Bay WWTWs. The improvements are primarily aimed at reducing the high operating costs of maintaining compliance with the final effluent discharge permit and not because of any direct environmental drivers. However it is hoped that the changes will benefit the environment because the works will perform more consistently and can accommodate higher loads.

Swansea Bay WWTWs was built in 1998 and designed to treat a population equivalent of 165,000. The PE is now 185,000 and the new design gives the works headroom to accommodate a future increase in population to approximately 215,000 PE.

The sanitary limits of the permit are 50mg/l BOD and 60mg/l TSS on a 95%ile basis with flows up to 1,300l/s being treated to this level. Swansea STW has been compliant with these limits over the last 5 years however. A temporary variation in these limits to 67.5/170 BOD/TSS was active between February 2014 and March 2015 to accommodate the improvement works been carried out.

The inspection started from the head of works, from where we continued through the treatment system to the final effluent chamber.

Inlet

A new 'pre-inlet' chamber with a coarse mechanical bar screen has been constructed outside of the building to protect the 6mm screens from blinding with large bundles of incoming rag and debris. This has been successful and the amount of rag entering into the treatment system has been minimised. From the pre-inlet the flows then enter the inlet safety chamber. The isolation penstock in the inlet has been removed as in-coming flows can now be controlled at Langdon Road and the risk of a large scale chemical and petrol spillage into the network is no longer apparent because the petrochemical industry within the catchment has now closed.

Action: Can you please confirm whether the potential still exists for the short sea outfall from the inlet chamber to operate?

There are 3 effective inlet screens which are each capable of screening a flow of 1000 l/s. The inlet screens are followed by 4 grit and grease separator tanks which were upgraded in 2011.

Storm tanks

Flows in excess of 1300 l/s are discharged to the storm tanks after grit removal. The storm tanks are underground and are emptied automatically with contents being returned for full treatment. Event duration monitoring has been installed to record spills to Swansea Bay via the long sea outfall. Whilst DCWW are sharing the EDM spill data with NRW this will not become a requirement until a new 'EDM' permit is issued. This telemetry also provides spill alerts to the Safer Seas Service.

Primary Treatment

Primary treatment is still via the original lamella primary settlement tanks.

Secondary Treatment

This used to be achieved by an activated sludge plant (ASP) and lamella clarifiers in the final settlement tanks (FSTs). This has been replaced with moving bed biofilm reactors (MBBR) in the ASP and dissolved air flotation (DAF) in the FSTs. One of the restrictions of any improvements made at Swansea WWTW is the footprint of the works (it is in a building) but this technology has allowed the system to be fitted into the existing structure of the works. The new system is able to cope much better with the unpredictable incoming loads and fluctuating flows.

Tertiary Treatment

The Ultra Violet disinfection plant was upgraded to a TrojanUVSigna plant in 2013/14. This plant is much more energy-efficient, easier to maintain with longer lamp-life. The old plant was left running while the new plant was installed. There have been issues in the past with the recording systems and communications at the plant. These have now been resolved by installing new equipment. The improved air quality in the works should also reduce corrosion.

Final Effluent Chamber

Flows were low at the time of the inspection and the final effluent was visually clear. The UWWTD sampling equipment located in the final effluent chamber has been replaced since my last inspection.

Sludge collection/treatment

It has yet to be decided whether to commission the digesters or send sludge to the anaerobic digestion plant at Afan WWTW. Currently there is a pathway between the digesters (which are located outside the building) and a surface water discharging onto the adjacent foreshore. This was identified following a pollution incident in January 2016 (ref: 1402618). Dependant on the decision made, pollution prevention measures will need to be installed between the digesters and their associated pipe work and the highway drains.

Action: Please keep me updated via local liaison meetings as to whether this risk has been minimised.

Sustainable energy generation

A wind turbine has recently been installed to help power the works and to assist in reducing DCWWs carbon footprint.

Summary

Whilst the improvements at Swansea WWTWs have not been driven by any environmental concerns the overall result is a more sustainable and resilient works that treats sewage to a higher standard. During my visit I did not observe any serious issues or non-compliances and I was pleased to see the level of investment and work that has been applied at the works.

EPR Compliance Assessment Report

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Operator/Permit holder	DWR CYMRU CYFYNGEDIG	Date	18/07/2016

Section 3 – Enforcement Response

You must take immediate action to rectify any non-compliance and prevent repetition.

Non-compliance with your permit conditions constitutes an offence and can result in criminal prosecutions and/or suspension or revocation of a permit. Please read the detailed assessment in Section 2 and the steps you need to take in Section 4 below.

Section 4 – Action(s)

This section summarises the actions identified during the assessment along with the timescales for when they will need to be completed.

Criteria Ref.	CCS Category	Action required/advised	Due Date
See Section 1 above			

Section 5 – Compliance notes for the Operator

To ensure you correct actual or potential non-compliance we may

- Advise on corrective actions verbally or in writing
- Require you to take specific actions verbally or in writing
- Issue a notice
- Require you to review your procedures or management system
- Change some of the conditions of your permit
- Decide to undertake a full review of your permit

Any breach of a permit condition is an offence and we may take legal action against you

- We will normally provide advice and guidance to assist you to come back into compliance either after an offence is committed or where we consider that an offence is likely to be committed. This is without prejudice to any other enforcement response that we consider may be required.
- Enforcement action can include the issue of a formal caution, prosecution, the service of a notice and/or suspension or revocation of the permit.

See our Enforcement and Civil Sanctions guidance for further information

This report does not relieve the site operator of the responsibility to

- Ensure you comply with the conditions of the permit at all times and prevent pollution of the environment
- Ensure you comply with other legislative provisions which may apply

Non-compliance scores and categories

CCS category	Description	Score
C1	A non-compliance that could have a major environmental effect	60
C2	A non-compliance which could have a significant environmental effect	31
C3	A non-compliance which could have a minor environmental effect	4
C4	A non-compliance which has no potential environmental effect	0.1

Operational Risk Appraisal (Opra) - Compliance assessment findings may affect your Opra score and/or your charges. This score influences the resource we use to assess permit compliance.

Section 6 – General information

Data protection notice

The information on this form will be processed by the Natural Resources Wales (NRW) to fulfil its regulatory and monitoring functions and to maintain the relevant public register(s). The NRW may also use and/or disclose it in connection with:

- Offering/providing you with its literature/services relating to environmental matters
- Consulting with the public, public bodies and other organisations (eg. 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 its service
- Freedom of Information Act/Environmental Regulations request

The NRW may pass it on to its agents/representatives to do these things on its behalf. You should ensure that any persons named on this form are informed of the contents of this data protection notice.

Disclosure of information

The NRW will provide a copy of this report to the public register(s). However, if you consider that any information contained in this report should not be released to the public register(s) on the grounds of commercial confidentiality, you must write to your local area office within fifteen working days of receipt of this form indicating which information it concerns and why it should not be released, giving your reasons in full.

Customer charter

What can I do if I disagree with this compliance assessment report?

If you are unable to resolve the issue with your site officer, you should firstly discuss the matter with officer's line managers using the informal appeals procedure. If you wish to raise your dispute further through our official Complaints and Commendations procedure, phone our general enquiry number 0300 065 3000 (Mon to Fri 08.00 – 18.00) and ask for the Customer Contact team or send an email to enquiries@naturalresourceswales.gov.uk. If you are still dissatisfied you can make a complaint to the Public Services Ombudsman for Wales. For advice on how to complain to the Ombudsman phone their helpline on 0845 607 0987.

Welsh Language

If you would like this form in Welsh please contact your Regulatory Officer.