

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

Site	Afan Combined Heat And Power Facility	Permit Ref	ZP3032KQ		
Operator/Permit holder	Dwr Cymru Pentwyn Road				
Regime	Waste Operations				
Date of assessment	28/04/2016	Time in	N/A	Out	N/A
Assessment type	Report/Data Review				
Parts of the permit assessed	4.2.2				
Lead officer's name	Thomas, Ffion				
Accompanied by					
Recipient's name/position	Matthew Griffiths/ Environmental Consenting Specialist	Date issued	01/06/2016		

### Section 1 – Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations. 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
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	C4	4.2.2 (c)
	C4	4.2.2 (a)
	C4	4.2.2

**KEY:** See Section 4 for breach categories, suspended scores will be indicated as such.

**A** = Assessed or assessed in part (no evidence of non-compliance), **N** = Not Assessed, **X**= Action only

<b>Number of breaches recorded</b>	<b>3</b>	<b>Total compliance score</b> (see section 5 for scoring scheme)	0.3
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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 compliance assessment report for has been completed following review of the annual reporting submission received on the 1<sup>st</sup> April 2016 for the DCWW Afan CHP site (permit ZP3032KQ)

### Parts of permit assessed

- 4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:
- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
  - (b) the annual production /treatment data set out in schedule 4 table S4.2; and
  - (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.

### Data submission review

The operator submitted the emissions to air monitoring report for the period Jan 15 to Dec 15 via email on the 1<sup>st</sup> April 2016. The emission testing occurred on 13/8/15 and the report submission dated 31/3/16. No explanation was provided for the delayed submission.

**Non-compliance:** Permit condition 4.2.2 requires submission to be made by 31 January. This late submission constitutes a breach of the permit condition and I have scored the breach accordingly as a non-compliance of CCS 4 as per our guide "Cat 4 – late reporting"

This is not the first time that the annual reports have been submitted late, and as such you have now been issued with a warning as our enforcement response.

A review of the data submitted and trend tracking has been undertaken for the last 5 years for both the performance indicators and emission monitoring, findings are discussed below:

## Review of performance indicators:

### Performance tracker data:

performance indicators	2011	2012	2013	2014	2015
Electrical Energy generated	9179MWh	7900MWh	9300.6MWh	no record	10669MWh
Thermal Energy generated	8566MWh	9500MWh	11761Wh		13450MWh
Total Biogas input into CHP engines	28026MWh	34295MWh	29070.4MWh		3545Mwh
Total biogas into boilers	240MWh	512MWh	98.5MWh		no data submitted
Engine (electrical) efficiency	34%	%	31.99%		
Boiler (thermal) efficiency	134%	%	126%		3.0MWh/m3 biogas
Hours of operation for CHP engines	8516hrs	8819hrs	8337 hrs		no data submitted
Operational hours of flare	47Hrs	84hrs (0.9% of time)	11 Hrs (0.1% of time)		no data submitted
Operational hours of boilers fired on biogas	224Hrs (2.6% of time)	330Hrs (3.7% of time)	72 hrs (0.8% of time)		<10%
Abnormal operation of pressure release valves	None	None	No abnormal operations		no abnormal operation
Water usage	15423m <sup>3</sup>	18829m <sup>3</sup>	17019m <sup>3</sup>		no data submitted

As stated in condition 4.2.2 C) the reports shall include the performance parameters set out in Table S4.3, table S4.3 is copied below for ease of reference

Table S4.3 Performance parameters		
Parameter	Frequency of assessment	Units
Total biogas input into the CHP engines	Annually	MWh (gross calorific value)
Total biogas input into the boilers	Annually	MWh (gross calorific value)
Engine and boiler efficiency	Annually	%
Hours of operation for CHP engines	Annually	hours
Operational hours of the flare	Annually	hours
Operational hours of boilers supplementary fired on biogas	Annually	hours and % of total operational hours
Abnormal operation of pressure release valves to be reported to the Environment Agency	Continuous	-
Water usage	Annually	m <sup>3</sup>

## Review of submission

Below is a copy of the performance indicators submission:

Permit Number: EPR/ZP3032KQ Operator: Dŵr Cymru Cyfyngedig  
 Facility: Afan CHP Facility Form Number: Performance 1

Reporting of other performance indicators for the period Jan 1<sup>st</sup> 2011 to Dec 31<sup>st</sup> 2011

Parameter	Units	
Total biogas input into the CHP engines	3545	MWh (gross calorific value)
Total biogas input into the boilers		MWh (gross calorific value)
Engine and boiler efficiency	3.0MWh/m <sup>3</sup> biogas	%
Hours of operation for CHP engines		hours
Operational hours of the flare		hours
Operational hours of boilers supplementary fired on biogas	<10%	hours and % of total operational hours
Abnormal operation of pressure release valves (if not reported as a Schedule 5 notification)	No abnormal operation	

Operator's comments :

Signed ..... Date.....

The performance indicators submission above (for 2015 ) is missing data, there are no operational hours for the engines nor flare included. The total biogas input into the boilers is also missing and the engine and boiler efficiency has not been submitted as a %. Water usage data is missing. The submission also has some typographical errors in the reporting period being shown as Jan 2011 to Dec 2011 and the form has not been signed.

**Non-compliance:** Missing data constitutes a breach of the permit condition 4.2.2 (c) table S4.3 and I have scored the breach accordingly as a non-compliance of CCS 4 as per our guide “Cat 4 –missing data”

This is not the first time that the annual reports have been missing data and the issue has been previously raised in, as such you have now been issued with a warning as our enforcement response.

Under condition 4.2.2(a) an interpretive review of the data is required. This issue has been previously raised in CAR forms 5033 – issued in 2013 following the 2012 data submission and 5508 issued in 2014 to cover the 2013 submission, with further advice and guidance on how to undertake the review and what aspects to cover in CAR 5616 issued in 2014. The 2014 submissions were discussed via email and a meeting proposed to discuss improving the quality of the submission but not undertaken by DCWW.

**Non-Compliance:** It is very disappointing to see that again this year no interpretative review, as required by permit condition 4.2.2 (a) has been undertaken. I have scored the breach accordingly as a non-compliance of CCS 4 as per our guide “Cat 4 –missing data” and have issued a warning as our enforcement response.

**ACTION DCWW** submit an interpretive review of the performance indicators by 30/7/16. I suggest reviewing previous CAR forms 5508 and 5616 for advice provided.

**ACTION DCWW** Complete the data submissions, ensuring all parameters required are reported (in units as required)

**Review of emissions data:**

I have undertaken a review of the emissions data and include ongoing taking below

Emissions to air- annual return			2011		2012		2013		2014		2015	
Parameter	Limits	results	uncertainty %	results	uncertainty %	results	uncertainty %	results	uncertainty %	results	uncertainty %	
A1- CHP unit 1	Nox	500	386.1	3	405.4	3.5	370.2	2.1	487.23	3	495.31	2
	CO	1400	896.8	3.6	814.5	1.8	1188.7	3	723.8	2	800.44	2
	SO2	339	54.1	0.43	89.7	4.2	224.7	10.5	27.23	13	22.78	13
A2 CHP unit 2	NOx	500	451.4	3.6	331.8	3.4	409.2	4	386.62	3	458.97	2
	CO	1400	859.7	3.5	787.6	1.8	1085.1	2.8	736.58	2	913.45	2
	SO2	339	20	0.33	38.1	1.8	236.5	11	26.84	13	24.65	13
A3 - Boiler unit 1 -A4 boiler unit 2#	Nox express	170	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA
	CO	75	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA
	SO2	160	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA
A5 - Boigas flares	Nox	150	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA
	CO	50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA
	SO2	339	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA
	operational	>1000 C	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA

The review indicates a slight upward trend in the NOx and CO at both units, but a decrease in the SO2 is seen. Without the interpretative report it is presumed this decline in SO2 is due to the performance of the siloxane plant but this needs to be clarified by the operator (as discussed above via an interpretative report)

The emissions continue to be within the permitted limits and general trends are consistent across the data set.

**Non-compliance summary:**

**4.2.2 - Late reporting**

**4.2.2 (a) - No interpretive report**

#### **4.2.2 (c) - Missing data**

3 x CCS 4 scored, equalling a non-compliance score of 0.3 and compliance band of B.

#### **Action Summary:**

**ACTION DCWW** submit an interpretive review of the performance indicators by 31/7/16. I suggest reviewing previous CAR forms 5508 and 5616 for advice provided.

**ACTION DCWW** Complete the data submissions, ensuring all parameters required are reported (in units as required) by 31/7/16

**END**

Any compliance criteria not highlighted in the above summary should be considered as not assessed.

In this document 'Natural Resources Wales' means the Natural Resource Body for Wales established by Article 3 of the Natural Resource Body for Wales (Establishment) Order 2012.

## EPR Compliance Assessment Report

**Report ID:  
CAR\_NRW0017512**

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

Site	Afan Combined Heat And Power Facility	Permit Ref	ZP3032KQ
Operator/Permit holder	Dwr Cymru Pentwyn Road	Date	28/04/2016

### 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.

In respect of the above non-compliance you have been issued with a warning. At present we do not intend to take further enforcement action. This does not preclude us from taking additional enforcement action if further relevant information comes to light or offences continue.

### 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			
G4	C4	Submit missing parameters and provide data in correct units	31/07/2016
G4	C4	submit interprevite report of annual reporting submission	31/07/2016
G4	C4	improve submission compliance	31/07/2016

## 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 reports should not be released to the public register(s) on the grounds of commercial confidentiality, you must write to your local area office within twenty 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.