

Compliance Assessment Report

Report ID:
CAR_NRW0032696

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

Site	Barry CHP	Permit Ref	JP3632ZH			
Operator/Permit holder	Engie FM Ltd					
Regime	Installations					
Date of assessment	06/12/2017	Time in	09:00	Out	17:00	
Assessment type	Audit					
Parts of the permit assessed	BREF review and incident review					
Lead officer's name	Griffiths, Toby					
Accompanied by	Leakey, Antony					
Recipient's name/position	Paul Searle/ Operations Engineer	Date issued	11/01/2018			

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	X	
	A	
B4 - Infrastructure - Containment of stored materials	A	
C2 - General Management - Management system and operating procedures	A	
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	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

Engie / Dow meeting of 6th December 2017

1. Introduction

A visit was arranged with NRW, Dow Corning and Engie to follow up from the previous visit to Engie CHP plant and to discuss the changes which will be implemented during the BREF review in relation to the CHP plant.

Last actions received (late)

Ref: Action 1: DFO bund review. The improvements to the bund joints for fire resistance was briefly discussed. As Dow have owned the asset since March, any improvements would need to be agreed between Engie and Dow. Some retrofit options were discussed. The review also considers phasing out the use of DFO, which could negate the need to upgrade the bund.

Ref: Action 4: Oil cooler maintenance, Engie are to check their auto reminder system to ensure maintenance is scheduled at correct intervals.

ACTION 1: Please confirm that the oil cooler maintenance is scheduled in the site maintenance systems.

Ref: Action 5: O2 sensor calibration. The sensor was replaced in June 2017, after initial recognition of the fault in January. Delays in receiving calibration gas have then been experienced due to contractor errors and problems with the order process. It is disappointing that there have been significant delays, meaning that the O2 sensor is still not fully calibrated or in operation. Ultimately, the initial delay in rectifying the faulty sensor lead to the black smoke emission in June. It is now important that arrangements are made to ensure that sufficient calibration gasses are always available. It is recognised that the change in site personnel may have contributed to delays.

ACTION 2: Please confirm the completion of the new sensor commissioning, including its calibration.

Ref: Action 6: Incident document refs 20071 and 23393 were received from Engie. However, the documents do not constitute a review of the incident. A review should include any corrective actions and lessons learned to prevent a similar incident.

ACTION 3: Please provide a final incident review summary, which should include details of any completed improvements and timescales for any further planned improvements.

MP Boilers (A4 and A5)

Ref: Action 7: This was discussed during the meeting. The medium pressure boilers (A4 and A5) are above the 15MW(th) threshold in the BREF for continuous monitoring, but are currently monitored on an annual extractive basis. The BREF does acknowledge that smaller plants

operated below <1500hrs per year may have reduced requirements such as 6 monthly monitoring.

CEMS were originally installed, but were removed with agreement with the Environment Agency, once they became obsolete. As the boilers are used as “back-up” there may be flexibility over the monitoring requirements, provided there is justification. As stated in the CAR form of 10/10/2017, the permit currently requires 6 monthly monitoring.

As discussed, depending on the operating regime of the boilers, an annual extractive test, combined with a 6-monthly calculation may be sufficient to meet the twice per year requirement. However, NRW needs further information upon which to determine what is appropriate. Currently, Engie are not strictly compliant, in that only one of the two rounds of monitoring is being reported. The information needed should include the running regime of the MP boilers to determine the feasibility for undertaking a second extractive test per year.

ACTION 4: Please provide proposals to meet the 6 monthly monitoring requirements at A4 and A5. This should include information on the operating regime, load and the hours of operation of the MP boilers during a typical year.

Permit changes

The options for rationalising the permits was discussed, which includes the option of combining the two (Dow and Engie) or transferring the Engie permit into the Dow name, but retaining separate permits. In addition, Dow is undergoing a name change to “Dow Silicones Limited.” This may impact on how and when to change permits, particularly if the company registration number changes.

ACTION 5: Please (Dow / Engie) keep NRW informed of proposals to rationalise permits.

2. BREF review (main)

The main purpose of the visit was to go through the recently issued BAT Conclusions (BATc) document following the publication of the BREF in August 2017. Plants subject to the LCP BREF are required to have compliant permits by August 2021.

Each of the relevant BATc paragraphs were reviewed to determine whether there are any areas of concern ahead of the formal process of comparing the plant against the BATc. There are several areas requiring clarification, which are still being discussed within government and regulators. These were outlined during the meeting. Engie / Dow have access to the JEP/Energy UK forum, and will therefore benefit from the information provided by this group.

Timelines

Currently, as part of the regulators BREF interpretation work, NRW is reviewing sections relating to gas fired engines and boilers. The interpretation document is expected to be released in early 2018, and in principle, draft information will be shared with the membership organisations representing the energy industry.

A formal request for a comparison of each plant against the BATc, will be made via a Regulation 61 notice, similar to the process for the IED permit reviews in 2014/2015. These are expected to be issued in April 2018, with 6 months allowed for a response, allowing the permit variation work to commence in October 2018. A further 12 months is then allowed for the completion of permitting work by October 2019.

NB: Some of the below aspects are to be clarified via the interpretation document and/or via the energy/combustion sector groups.

ELVs

The BAT AEL-based ELVs were discussed and are outlined below (plant between 50 - 600MWth, fuel utilisation >75%): Table 24, page 54.

NO_x – annual mean 55 mg/m³ (footnote 10), daily mean 80 mg/m³ (footnote 11), these will apply from August 2021 at the latest, but ongoing interpretation of applicability dates for plants upgrading during the TNP may dictate that these ELVs will need to apply from 1 July 2020 unless an Article 15(4) derogation is applied for and granted.

In addition, at the end of the TNP from 1 July 2020, the following mandatory ELVs will apply for plants with fuel utilisation >75%:

NO_x – monthly mean 75 mg/m³, daily mean 82.5 mg/m³, annual 95%ile of hourly averages 150 mg/m³ - IED Annex V, noting that the monthly and annual 95%ile ELVs will continue to apply when the LCP Bref BAT AELs come into effect, but the daily mean will be replaced by the BAT AEL value as it is lower. There may also be scope for the annual BAT AEL to be implemented as a monthly average instead, replacing the Annex V monthly value.

Finally, it should be noted that the BAT AEL-based NO_x ELVs apply from the effectiveness threshold for dry low NO_x burner operation and not 70% load as for the Annex V ELVs. If possible all ELVs will be rationalised to the effective DLN threshold, which will need to be provided in response to the Regulation 61 notice requiring confirmation of compliance with the BAT Conclusions.

CO – annual mean 55 mg/m³ plus current 80 mg/m³ values (no back sliding principle), although a BAT case can be made (not Article 15(4) derogation, but using the same principles) to allow for higher CO in order to achieve a NO_x BAT AEL. It is acknowledged that applying the CO ELV should not be at the expense of the NO_x EAL.

Monitoring and ELV compliance

Although the ELVs are known, there is some uncertainty over the application of averaging periods due to differences between those of the IED and BREF. We are considering how best to require reporting against these limits and whether they can be rationalised. Similarly, the application of confidence intervals is to be confirmed.

BAT 10 & 11 requires some assessment of emissions during periods of “Other Than Normal Operating Conditions” (OTNOC). To enable this to be carried out, these periods will need to be clearly defined by Engie. Further guidance is likely to be available through the compliance protocol document.

Permit Condition 2.4.1

Improvement conditions IC4, IC5, IC6 have been provisionally signed off, but since they relate to monitoring, they will be reviewed during the next OMA audit which is planned for February 2018.

Start up and shut down (Improvement Condition IC4 and Table S1.4)

The definitions of start up and shut down will need to be refined to account for any changes to the plant e.g. DLN burner upgrades. For example, ELVs will apply when the DLN becomes effective. This may or may not be aligned with the current start up / shut down criteria, which were identified through improvement condition IC4 and Table S1.4.

An initial response for IC4 was provided in June 2016, however, a final version showing the full details has not yet been received. It is understood that Engie use a combination of criteria including: turbine speed, steam injection, temperature and steam pressure / load/ output MW(e).

Please note that either 3 process parameters (one could include a load threshold) or a load threshold alone (if appropriate) is required to comply with the requirements. During the meeting, it was considered that some of the parameters used are not fully appropriate triggers for start up /

shut down. These aspects need to be clarified by Engie and reported to NRW. Emissions profiles should be used to justify the choice of criteria.

ACTION 6: Please provide the current start up and shut down criteria used in relation to the plant operation, and identify what further criteria may be required.

Fuel characterisation

A gas chromatograph is used to demonstrate fuel quality. There is some value in knowing the constituents of the gas received, as they can affect compliance with the ELVs. However, the level of detail required has not yet been confirmed. This will be clarified in the interpretation document.

Please respond to the 6 actions by **16th February 2018**.

END

EPR Compliance Assessment Report

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Operator/Permit holder	Engie FM Ltd	Date	06/12/2017

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.

Other than the provision of advice and guidance, at present we do not intend to take further enforcement action in respect of the non-compliance identified above. This does not preclude us from taking enforcement action if further relevant information comes to light or advice isn't followed.

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			
A1	X	Please respond to the 6 actions listed in the main document.	16/02/2018

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.