

Compliance Assessment Report

Report ID:
CAR_NRW0035143

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

Site	Barry CHP	Permit Ref	JP3632ZH		
Operator/Permit holder	Dow Silicones UK Limited				
Regime	Installations				
Date of assessment	20/05/2019	Time in	N/A	Out	N/A
Assessment type	Report/Data Review				
Parts of the permit assessed	Emissions, EMS, Monitoring				
Lead officer's name	Leakey, Antony				
Accompanied by					
Recipient's name/position	Judith Sartor/ Environmental Specialist	Date issued	20/05/2019		

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
C2 - General Management - Management system and operating procedures	C3	1.1.1
E1 - Emissions - Air	C4	3.1.2
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	2	Total compliance score (see section 5 for scoring scheme)	4.1
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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

Dow CHP permit and reporting review

LCP Bref Review/end of TNP

Dow Silicones has confirmed that the GTs will be upgraded to DLN specification before the end of the TNP in order to ensure compliance with the Annex V ELVs by 30/6/20 and LCP Bref BAT AELs in the future when the chemicals installation permit is reviewed.

The HP and LP boilers will also be upgraded to meet Annex V and Bref emissions levels, but not to the same timescale, as they will be required to operate during the GT upgrades and the lead time for boiler upgrades may extend beyond the end of the TNP. This may lead to compliance difficulties with the Annex V continuous monitoring-based boiler ELVs for the HP boiler until it is upgraded.

The current IED ESI Compliance Protocol allows plant that operate at low load (<500 hours/year) to implement periodic monitoring every 4380 hours or 2 years, whichever is sooner, in accordance with section 4.1.3, page 23 of the current IED ESI Compliance Protocol, while maintaining annual functional testing. This addresses the issue with "backsliding" from use of CEMs for the HP boiler during the period prior to upgrading, if it only operates at low load factors following the GT upgrades.

It may be possible to implement the CEMs and associated Annex V ELV requirements for the HP boiler in the post-TNP permit immediately and rely upon the Protocol requirements to deal with reporting of emissions during the period of low load factor operation and using an improvement condition to ensure notification of the completion of the HP boiler upgrade and resumption of full CEMs-based compliance reporting.

If the MP boilers are to be upgraded and operated in the long term rather than decommissioned, then CEMs would need to be installed, although low load factor may dictate that section 4.1.3, page 23 of the current IED ESI Compliance Protocol is applied on a longer-term basis.

The use of "other than normal operating conditions" (OTNOC) provisions may also be possible for short-duration intermittent outages of the GTs.

LCP Bref BAT-AEL based ELVs could also be included in the permit for all units comprising the LCP effective from completion of an improvement condition confirming that emissions performance will achieve compliance. This would avoid the need for a variation when the main chemical installation permit is reviewed.

Proposed permit review approach:

- Implement the Annex V CEMs and associated ELV requirements for the HP and MP boilers in the revised post-TNP permit.
- Review compliance reporting approach if necessary when boiler upgrade timeline is known.
- Include in the revised post-TNP permit an improvement condition requiring notification of the completion of the HP and MP boiler upgrades and resumption of full CEMs-based

compliance reporting.

- Include in the revised post-TNP permit an improvement condition confirming the date that emissions performance for all LCP units is achieving compliance with Bref BAT AELs.

A request for clarification or further information relating to the Regulation 61 notice response will be made by email shortly with a 2 or 3-month response time. After this the permit review will be completed.

ACTION: Dow Silicones to consider proposed implementation and provide any feedback at next site meeting.

Gas oil firing

Gas oil firing will cease, and capability will be decommissioned in advance of the permit review variation being issued. Oil will be removed by tanker.

ACTION: Dow Silicones to provide an update as necessary.

HP boiler CO ELV breach

Daily mean ELV was exceeded for a total of 52 hours of operation between 21-26/9/18. This was caused by an undiagnosed oxygen analyser fault. This is considered to be a no impact category 4 breach of permit condition 3.1.2 because the CO levels were not sufficiently high to result in significant levels of partial combustion products emissions or exceedance of the CO air quality standard. This is a critical process control sensor and good management of its maintenance is essential, therefore a minor breach of permit condition 1.1.1 is also considered to have occurred due to the potential for other parameters with greater environmental impact, such as NO_x, to be affected.

ACTION: Dow Silicones to undertake a review of other critical process control systems and their maintenance and provide an update at next site meeting.

Monitoring returns and notification review

Monitoring data for Q1 2018 to Q2 2019, the annual report for 2018 has been reviewed and no breach of permit conditions was identified other than those already addressed in previous correspondence.

It is noted that >10 days of invalid CEM data was accumulated during 2018 on emission point A1 of the LCP. The preventative actions implementation will be reviewed at the next site visit.

Please note that by-pass and LCP operating hours reporting should be on the basis that by-pass is total time either GT is operated in by-pass mode, which should normally be less than 500 hours per year, and total time that any of the units which make up the LCP are in operation, discounting overlapping operating hours of units, when just the overlap period should be included in the total.

END

EPR Compliance Assessment Report

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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			
E1	C4	Actions completed to improve maintenance and testing of oxygen sensor.	31/05/2019
C2	C3	Dow Silicones to undertake a review of other critical process control systems and their maintenance and provide an update.	01/12/2019

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.