

Compliance Assessment Report

Report ID:
CAR_NRW0031979

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

Site	Padeswood Cement Works EPR/BL1096IB	Permit Ref	BL1096IB		
Operator/Permit holder	Castle Cement Limited				
Regime	Installations				
Date of assessment	24/08/2017	Time in	N/A	Out	N/A
Assessment type	Report/Data Review				
Parts of the permit assessed	Routine Emissions Monitoring Data				
Lead officer's name	Ross, Stuart				
Accompanied by					
Recipient's name/position	Robert Keough/ Quality & Environment Manager	Date issued	24/08/2017		

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
E1 - Emissions - Air	C3	3.1.2
E3 - Emissions - Surface water	A	
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	A	
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	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	1	Total compliance score (see section 5 for scoring scheme)	4
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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 covers a review of routine emissions monitoring data for the period 1st January – 30th June 2017 for all permitted emission points to air and water.

All reports received on time - thank you.

1. Emissions to Water (W1)

Emissions compliant with the permit limits during the period.

2. Emissions to Air

Continuous Monitoring (A1 - A9)

All parameters were within permitted limits with the following exceptions for which Part A and B notifications were received as required by the permit:

a) Emission Point A8 (Kiln) Particulates (Emission limit 10mg/Nm³)

19.58 mg/Nm³ (03/02/17)

The operator reported that:

'The kiln had recently started after the annual shutdown and had run for the previous two days. During this time the main bag filter dust emission was trending slightly higher than usual at around 5-8 mg/Nm³. Isolation of individual compartments was carried out to try and isolate the source of the elevated emissions, however this was not immediately obvious. At 1am on 03/03/17 the dust started to trend above the emission limit. Again compartments were isolated and it was identified that the elevated emissions stemmed from chamber 4. The kiln was stopped at 8am and four damaged bags were found in chamber 4. These were subsequently replaced and the kiln was restarted after which the dust emission averaged between 3 – 5 mg/Nm³. Following the breach all of the remaining bags in chamber 4 were changed 13th / 14th February as a precautionary measure'

ACTION – Please confirm the time the defective bags (chamber 4) were identified and the reason the bags were found to be damaged.

b) Emission Point A8 (Kiln) Particulates (Emission limit 10mg/Nm³)

27.35mg/Nm³ (08/05/17) & 47.73 mg/Nm³ (09/05/17).

The operator reported that:

'The breach of emissions followed a variety of unplanned kiln stops and a subsequent kiln start on the 8th May 2017. Each kiln stop contributed to filling up the hoppers below the main bag filter. The combination of fresh dust from the process alongside historic dust from kiln stops meant that the site was unable to remove sufficient material from the hoppers during operation. This led to significant damage to some chambers in bag filter and a breach of emissions.

More specifically, the kiln started at 16:30 after which the filter hoppers were being emptied as per routine procedure. This involved the shift operator manually controlling each sluice to empty the respective hoppers on each chamber. During this time emissions were within the expected range.

At 20:30 there was a large increase in dust emission from the filter. Firstly the CEMs monitor was checked and was confirmed to be working correctly. Following this the shift team continued emptying hoppers to try and identify where there elevated emissions originated.

As the team was emptying hopper 3 the sluice below it failed. It was believed that there was a foreign object restricting its operation. Hopper 3 was then isolated so that remedial work could be carried out on the sluice during the day.

The shift team carried out clearing the remaining hoppers; however, this did not resolve high level of emissions, as expected. Subsequently the kiln was stopped at 05:30 on the 9th . The high level of dust in the hoppers was suspect to be due to no alarm signals being activated on the high level alarms on each hopper. After this incident the probes were inspected and the sensitivity on each probe was increased.

On the next kiln shutdown each of these high level probes will be tested again, which is not possible during operation. The site will continue with routine shift checks to identify material build up in hoppers by manual methods.

We have replaced approximately 1200 bags in the filter following this incident. This included chamber 1&3 receiving a full bag replacement. The remaining four chambers were subject to leak detection whereby suspicious bags were replaced. An overhaul of the blower which transports dust from the main bag filter to the dust silo has been completed. This should enable swifter removal of dust from each of the hopper'.

ACTION – Provide root cause analysis as to why the level detection on the collector hoppers did not activate the high level alarm.

ACTION – Provide NRW with the operating procedure for the bag plant under both normal and abnormal operating conditions (including start up).

c) Emission Point A6 (Cement Mill 4) Particulates (Emission limit 10mg/Nm³).

11.71 mg/Nm³. (22/04/17)

The operator reported that:

'The CEMs data on redecam filter started to trend upwards on the afternoon of the 20th April and into the 21st April. A faulty compressor was initially diagnosed to have contributed to the problem. This was rectified and subsequently the emissions reduced.

Although the emissions on the filter were below the permit level on the subsequent days, the values were still trending above typical. Further inspection work was carried out on the filter with the replacement of 2 bags on the 24th April and 4 bags on the 25th April. Following this emissions returned to normal level.

As a full change of filter bags had been carried out in December the failed bags were sent away to the supplier for testing, this was to diagnose why failure had occurred early in the life cycle of the bag.

A report from the supplier indicated that the bags had suffered from water damage due to excess moisture. In order to understand why an inspection of the water injection system on the mill was carried out and subsequently the internal spray nozzles were replaced. The mill diaphragm was also inspected and unblocked, this in turn reduced the water requirement for mill cooling. To mitigate this happening again inspection of the mill diaphragm and spray nozzles will be included in maintenance of the mill on a more frequent basis.

Also over the next 6 months further bags will be sent away for supplier testing to check for early signs of deterioration'

The emission limit exceedances detailed in the section above are in breach of permit condition 3.1.2 and attract a CCS score of 3.

Periodic Monitoring (A8)

1st January – 30th June 2017 - all emissions compliant.

EPR Compliance Assessment Report

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Operator/Permit holder	Castle Cement Limited	Date	24/08/2017

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.

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	C3	Refer details section	15/09/2017

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.