

## Compliance Assessment Report

Report ID:  
CAR\_NRW0036498

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

Site	Padeswood Cement Works	Permit Ref	BL10961B		
Operator/Permit holder	Castle Cement Limited				
Regime	Installations				
Date of assessment	31/03/2020	Time in	N/A	Out	N/A
Assessment type	Report/Data Review				
Parts of the permit assessed	Improvement Programme 2.4 and Noise 3.4				
Lead officer's name	Cubley, Lara				
Accompanied by					
Recipient's name/position	David Quick/ Plant Manager	Date issued	02/04/2020		

### 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
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	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

### Introduction

Natural Resources Wales received the report 'Element, (7th November 2019), "Hanson Cement - Padeswood Works Permit Improvement Condition 7 Noise Assessment - Document Ref.: ENE-0688\_Rev1' on the 27<sup>th</sup> January 2020.' In accordance with the timescales required.

This was in response to Permit Condition 2.4 – Improvement Programme, IC7 which states,

'Given the difficulties in applying the BS 4142 assessment methodology to this specific situation as there are existing sources due to be removed which may be contributing to the background levels. A monitoring study should be carried out once Mill 5 is operational to validate the noise source assumptions and implementation of proposed mitigation measures. A report shall be submitted to Natural Resources Wales demonstrating the results of the monitoring exercise.'

The report details a noise monitoring survey once Mill 5 (VRM) was operational to validate the noise source assumptions used in the original modelling<sup>(1)</sup> and the effectiveness of any implemented mitigation measures proposed in the original permit application supporting documentation.

This report includes:

- Attended monitoring at five residential receptor locations and a single unattended location immediately adjacent to Mill 5 and rail loading facility.
- Comparisons between night-time predicted noise levels and recent measured levels.
- Fast Fourier Transform (FFT) narrow-band frequency analysis to determine the presence of any tonal elements produced by the operating sound sources.

### Conclusions

Section 4.1 of the Submitted Report compares results from a modelled conservative concurrent operating scenario of “Production, Cement Mills 1, 2, 3 and the VRM”, submitted in support of the original permit application, with 2019 monitored data at receptor locations.

Reported differences range between -3 dB to +4 dB and the submitted report states that the comparison “...demonstrates a good correlation between the 2017 predicted Works operation levels and the 2019 measured levels.”

FFT narrow-band frequency analysis of measurements made at residential receptors identified a tonal element at receptor S5 (Oak Tree Farm East Track) with none identified at the remaining receptors.

The submitted report states that the original assumption that “...no mitigation is required as the addition of the VRM has little impact on the noise levels at the measured receptor locations”, stated in the original report submitted in support of their application for variation to EPR permit BL1096, remains valid.

We are unable to corroborate the predictions at receptors for the “Production, Cement Mills 1, 2, 3 and the VRM” scenario. Our own comparison of 2019 measurements with predictions at receptors for the “Production and VRM with all other mills off” scenario indicated differences between 0 dB and -4 dB at residential receptors S1 to S5. Based on these results and assuming that active noise sources consisted of those associated with production and the VRM only, the noise source assumptions used in the original model are acceptable for the modelled residential receptors in this instance.

A difference of -8 dB was found when comparing predicted values with measured sound pressure levels at receptor L1 situated at the site boundary adjacent to the VRM and rail loading facility using predictions from the “Production and VRM with all other mills off” scenario.

## Comments/Issues

1. Section 1.1 of the current report states that following operation of the Vertical Roller Mill (VRM) also identified as Mill 5, mills 1, 2 and 4 will be mothballed keeping Mill 3 available for periods when the VRM is non-operational or for periods of increased production demand. It is therefore not clear why measured data which, as a worse case, should only include production including the VRM & Mill 3, was compared with modelled production data including the VRM and Mills 1, 2 & 3.
2. Modelling input files submitted to AQMRAT for the original application for variation to EPR permit BL1096 did not include the “Production, Cement Mills 1, 2, 3 and the VRM” scenario, despite these modelled results being included in the original report. As details of specific sound sources for this scenario were not detailed in the original or newly submitted reports, we were unable to model predictions at receptors for this scenario.
3. The submitted report does not specify whether, in addition to production, noise sources associated with both the VRM and Mill 3 were operating during the monitoring period or whether only those sources associated with the VRM were operating.
4. The submitted report does not specify whether, in addition to production, noise sources

associated with the train movements, and indeed loading facility, were operating during the monitoring period.

5. Assuming on site active noise sources at the time of measuring consisted of only those associated with production and the VRM, our comparison indicates deviations between modelled (2017) and measured (2019) values at receptors range from 0 dB to -8 dB with the largest deviation occurring at receptor L1. As a doubling of the perceived loudness of a sound is typically accepted as equivalent to a level change of +10 dB, the current model noise source assumptions may represent a significant underestimation at this receptor. For the remaining receptors with differences between 0 dB and -4 dB, model noise source assumptions may be considered acceptable in this instance.
6. We were unable to correlate receptors L1, S2 & S4 from the submitted report with receptors identified in the original report. This was not a significant issue as the coordinates for these locations were provided in the submitted report although those for residential receptor S4 were incorrect.
7. Section 4.1 of the submitted report makes reference to measured sound pressure levels falling within category A of TAN11. It should be noted that this is not applicable to industrial noise sources as specified in Section B17 of TAN11 which references guidance in BS 4142. This point should therefore not be used to inform decision making regarding whether recent measurements fulfil the requirements of the improvement condition.
8. Averaging times for LA<sub>90</sub> (daytime) from unattended measurements are not specified in the submitted report. In addition, it is unknown how representative attended night time measurements may be as Table 5 in the submitted report indicates that these are based on single measurements of ≤ 15 minutes at each receptor / sample location.

## Compliance Assessment

The quality of the report submitted in response to IC7 does not sufficiently allow the validation of the noise source assumptions. As detailed above, scenarios for comparison are unclear, as are qualification of scenarios monitored. The choice of monitoring locations are also inconsistent with the original report and unexplained.

## Actions

**Action 1:** The Operator shall respond to the comments/issues 1 – 8 above in writing to NRW and should submit a further version of the report addressing these issues by 30/06/20, or as otherwise agreed in writing.

**Action 2:** The Operator must investigate the tonal element experienced at receptor S5 further. It is understood that this has been reviewed and will be provided together with the BAT review work due 31/03/20.

1 Northumbrian Water Environmental Services (May 2017) "Hanson Cement Padeswood Works Vertical Roller Mill Noise Impact Assessment", Application for variation to EPR permit BL1096 CM 5 Appendix 7, NWG Report No: GA001

## EPR Compliance Assessment Report

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Operator/Permit holder	Castle Cement Limited	Date	31/03/2020

### 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			

## 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](mailto: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.