

Compliance Assessment Report CAR_NRW0039712

Permit being assessed: BL1096IB.

For: Padeswood Cement Works , held by Castle Cement Limited

At: PADESWOOD WORKS , PADESWOOD, MOLD, MOLD, CLWYD, CH7 4HB.

Type of assessment carried out: Report/Data Review, Reason: Routine.

On 12/04/2022.

Parts of permit assessed: Improvement Condition - F2 Noise

NRW Lead Officer: Lara Cubley.

Report sent to: David Quick, Plant Manager on 28/04/2022.

1. Summary of our findings (full details in section 4)

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
A1 - Specified by permit	Assessed (A)	
F2 - Amenity - Noise	Action only (X)	

Result types are explained in more detail in the 'Important Information' section below.

Total number of non-compliances recorded	Total non-compliance score
0	0

How we use the non-compliance score to calculate your annual fee is explained in the 'Important Information' section below.

2. What action is required?

Criteria	Action needed	Complete by
F2	See Advice and Guidance - Action	31/07/2022

Action criteria codes are listed in the 'Important information' section below.

3. What will happen next?

Any non-compliance we have identified and recorded on this form is an offence. It can result in criminal prosecution and/or suspension or revocation of your permit.

At this time, we do not intend to take any further action.

This statement does not stop us from taking additional enforcement action if further relevant information comes to light or offences continue.

4. Details of our assessment

Natural Resources Wales (NRW) have assessed Improvement Condition 7 (IC7) submitted on the 26/11/21. Section A below required continued actions and Section B contains the

detailed review by NRW noise specialist. In summary, NRW are of the opinion that Improvement Condition 7 has been satisfied as it demonstrates that Mill 5 does not have a significant impact on the overall noise from the site.

A) Actions

ACTION: We advise that:

- The Operator should continue quarterly on-site source measurements and off-site receptor noise monitoring in accordance with Noise Management Plan in order to identify any noise pollution and potential improvements.
- Should there be plans to run Mills 1 & 2, arrangements for representative noise monitoring at receptors should to be conducted at your earliest opportunity with a view to verify the 2017 modelling.

The date for completion is stated as 31/07/22 as this will be the date by which the next quarterly noise monitoring is due. However, it is recognised that the monitoring to include Mills 1 & 2 is dependant upon them running again.

B) Noise Specialist Review Introduction

1. Elements report, 17th November 2021, "Hanson Cement - Padeswood Works Permit Improvement Condition 7 Noise Assessment", Document Ref: ENE-5079_Rev2 was received by NRW on 26/11/2021. We have assessed it against the requirements of Permit Improvement Condition 7 (IC7).
2. IC7 states; *"Given the difficulties of 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"*.
3. The submitted report stated that following the commissioning of the VRM (also identified as "Mill 5" in the original report), Cement Mills 1, 2 and 4 were mothballed, with Mill 3 remaining operational for periods when the VRM is not operational or to support increases in production demand.

Results and Conclusion

1. Following on from our initial comments on the 2019 monitoring survey (C404_WD01), the consultant has resubmitted this report to address the comments we made.
2. In the 2019 monitoring report, the consultant compared the 2017 modelling assessment, which included the VRM and Mills 1, 2 & 3, with monitored data which only included the VRM and Mill 3, so there wasn't a direct comparison, however in this updated report, the consultant has taken the 2017 assessment as worst-case operation as summited for planning (production + mills 1,2,3,5) and the new general operation scenario (production + mill 3 and 5). Again this is not a direct comparison but the main focus of this updated report is the impact Mill 5 has on the overall

sound levels from the site. It should be noted that as the consultant does have actual monitored data of the site which included Mill 5, the impact of Mill 5 is less important than the overall sound from the site.

3. The consultant has carried out a site wide noise survey to obtain sound levels of all of the plant on-site, this source data has been used in the most recent modelling of the current operational scenario.
4. We previously commented that *the submitted report did not specify whether, in addition to production, noise sources associated with both the VRM and Mill 3 were operating during the monitoring.* The consultant confirmed that during the 2019 night-time baseline survey, Production, VRM and Mill 3 were all operational – to present an operational scenario.
5. The report states that; *“As the predictions from the 2017 model show that the additional noise from the addition of Mill 5 is not significant in relation to existing site noise levels and therefore difficult to quantify at receptor positions. The measurements taken at offsite locations can be significantly influenced by wind direction and other erroneous sources. In order to demonstrate the relative impact on the closest receptor locations Element have conducted a site source noise survey across the Works and provided an updated model to represent the current operation of the works with Mill 5 and Mill 3 operational. The Mill 5 operational noise level can also be assessed without the influence of the works or any other external influence. The updated CadnaA site model, which incorporates general works production, and Mill 5 and Mill 3 operation noise can then be compared to the 2017 assessment and the measurements taken at position L1.”* If the purpose of this assessment is solely to satisfy Improvement Condition 7 and show that Mill 5 does not have a significant impact on the overall noise from the site then this appears reasonable. However, this is not a full BS4142 assessment as the consultant has not compared the specific sound from the site against the background sound levels, in addition, this is only valid for operations where Mill 3 and 5 are operational, if other mills (1 & 2) are recommissioned then these results may not be valid and further monitoring should be carried out.
6. The results in the submitted report (Table 7), present the predicted sound levels at each receptor, the results show that Mill 5 is not the dominant source on-site and does not significantly affect the overall noise levels from the site. Our checks broadly agree with the results presented.
7. The consultant has also carried out additional model runs with a 3 m/s wind direction applied for four separate directions to demonstrate the possible variability of noise levels at offsite locations due to the wind direction/general air movement across the works, the results appear consistent that Mill 5 does not have a significant impact on the overall site noise.

Comments

1. Table 1 of the submitted report presents the results from the initial 2017 modelling assessment, which compared the original permitted operation of production + Mills 1,2,3,4 against the variation scenario which was production + Mills 1,2,3,5. This table shows that the results of the 2 scenarios are quite similar, it should be noted that the consultant did not provide the modelling files for the 2017 assessment, we therefore haven't audited these.
2. Section 2 of the submitted report states that the noise survey carried out in 2019

was in accordance with the procedure described in BS 7445 parts 1 and 2 and BS4142:2014. Monitoring was carried out at 6 locations. Table 5 presents the results of this survey.

3. Table 6 of the submitted report, compares the results of the 2017 modelling assessment (production + Mills 1,2,3,5) against the monitored results (Production + Mills 3, 5), even though the results are quite similar, as stated in our previous report, the 2 scenarios are different and therefore cannot be directly compared.
4. Section 3 of the submitted report details the latest (2021) round of modelling, the consultant took sound source measurements during 2020 and 2021 to obtain the existing operational noise levels when Mill 3 and Mill 5 were operational.
5. The consultant used the source measurements, to build a noise model of the site. The consultant used CadnaA noise propagation software which uses the ISO 9613 calculation methodology. CadnaA is accepted for regulatory noise modelling. The report states that; *“the output of this modelling assessment allows the impact of the site noise to be assessed without the influence of any external noise influences.”*
6. Table 7 presents the results of the modelling assessment (production + Mills 3 & 5), the results show that Mill 5 is not the dominant noise source on-site and is not having a significant impact on the overall site noise, our checks broadly agree with this. However, it should be noted that this assessment covers only the noise sources mentioned above, if additional mills are re-commissioned an additional noise survey may be needed to verify the original 2017 modelling assessment.
7. Table 8 illustrates a comparison between the original 2017 modelling assessment (Production + Mills 1,2,3,5), the 2019 monitoring survey (Production + Mills 3,5) and the 2021 modelling assessment (Production + Mills 3,5). No direct comparison can be made with the 2017 modelling assessment as this was a different operating scenario, however the 2019 monitoring survey and 2021 modelling assessment are for the same operating scenario.
8. Section 3.1 of the submitted report states; *“The predicted data at the L1 site position data gives levels close to the average of 50 dB measured operational level during the assessment. This provides confidence in the output of the 2021 model.”* This appears reasonable as L1 is an on-site position used by the consultant to assess the sound levels of Mill 5.
9. Section 3.2 of the submitted report presents the consultants assessment of the variability of noise levels at receptor locations due to wind direction. The consultant has applied a 3m/s wind direction correction to the model for four receptor directions. Tables 9-13 present the results of the modelling assessment and conclude that Mill 5 does not have a significant impact on the overall site noise at the receptors.
10. The report states: *“Model runs with a 3m/s wind direction correction applied to all noise sources in four directions towards a receptor location have been assessed. Receptor measurements are usually taken at night during calm conditions, but the upper air movement is difficult to assess and can change during an assessment having an impact on the measured levels. The general air movement/wind direction is usually not measurable at the noise meter where wind speed is generally low and direction variable during measurement campaigns. The predicted levels show that assessing the correct noise levels at off-site receptor locations using measurement can be difficult. The variability due to wind and general air movement and background level can have a significant influence on the measured level. The level difference with the Mill on vs Mill off is small and difficult to assess from measurement alone. The models have demonstrated the variability in noise levels*

from the Works at receptor locations.

11. *The noise contribution from Mill 5 is significantly below the existing operational noise level so has little impact on the noise levels at the receptor locations.* This appears reasonable.
12. Section 4 of the submitted report states; *“It is recommended that the works continue to undertake routine onsite source measurements and offsite noise monitoring, with the aim of identifying opportunities for continuous improvement of the noise environment and highlight and identify problem noise sources.”* This appears reasonable, and further monitoring should be carried out if any of the other mills on-site are re-commissioned.

If you have any queries about this report, or to discuss completion of any actions, please contact the NRW Officer named above.

Important information

Legal status of this report

Your permit is issued to you under the Environmental Permitting Regulations. You have a responsibility to comply with the conditions of your permit and prevent pollution/harm of the environment. You must also ensure that you comply with any other relevant legislation that may apply to your site's operations.

This report explains the findings of our assessment and any action you are required to take. We categorise non-compliance using our guidance for assessing non-compliance at regulated sites.

When we find potential non-compliance/s we will normally give you advice on how to maintain compliance.

To correct non-compliance, we may:

- require you to take specific actions
- issue a notice
- review the conditions of your permit.

Any advice and guidance we give will be without prejudice to any other enforcement response that we consider may be required.

Assessment results and non-compliance categories (used in section 1):

Assessment result	Description
Assessed (A)	Assessed or assessed in part, no evidence of non-compliance found
Action only (X)	Action only relating to the activity assessment
Ongoing (O)	Ongoing non-compliance, not scored

Non-compliance category	Description	Score
C1 Major	Potential to have a major, serious, persistent and/or extensive impact or effect on the environment, people and/or property	60
C2 Significant	Potential to have a significant impact or effect on the environment, people and/or property	31
C3 Minor	Potential to have a minor or minimal impact or effect on the environment, people and/or property	4
C4 No environmental impact	Non-compliance at a regulated site that cannot foreseeably have any impact on the environment, people and/or property	0.1

How we use assessment scores

The number and severity of non-compliances recorded in a year will affect your annual subsistence fee the following year. A non-compliance factor is added to your site's Operator

Performance Risk Appraisal (OPRA) score when we calculate your fee to reflect the additional resource we use to assess permit compliance.

What are suspended scores?

In line with our guidance, we may suspend scores for up to six months to allow time for remedial action to be taken. Suspended scores will be re-instated if the action is not completed.

Full list of Industry and Waste action criteria (used in section 1 and 2):

A: Permitted activities

- A1 Specified by permit

B: Infrastructure

- B1 Infrastructure – Engineering for prevention and control of emissions
- B2 Infrastructure – Closure and decommissioning
- B3 Infrastructure – Site drainage engineering (clean and foul)
- B4 Infrastructure – Containment of stored materials
- B5 Infrastructure – Plant and equipment

C: General management

- C1 General management – Staff competency/training
- C2 General management – Management system and operating procedures
- C3 General management – Materials acceptance
- C4 General management – Storage, handling, labelling and segregation

D: Incident management

- D1 Incident management – Site security
- D2 Incident management – Accidents, emergency and incident planning

E: Emissions

- E1 Emissions – Air
- E2 Emissions – Land and groundwater
- E3 Emissions – Surface water
- E4 Emissions – Sewer
- E5 Emissions – Waste

F: Amenity

- F1 Amenity – Odour
- F2 Amenity – Noise
- F3 Amenity – Dust/fibres/particulates and litter
- F4 Amenity – Pests/birds and scavengers
- F5 Amenity – Deposits on road

G: Monitoring and records, maintenance and reporting

- G1 Monitoring and records, maintenance and reporting – Monitoring of emissions and environment
- G2 Monitoring and records, maintenance and reporting – Records of activity, site diary/journal/events
- G3 Monitoring and records, maintenance and reporting – Maintenance records
- G4 Monitoring and records, maintenance and reporting – Reporting and notification to Natural Resources Wales

H: Resources efficiency

- H1 Resource efficiency – Efficient use of raw materials
- H2 Resource efficiency – Energy efficiency

Enforcement response

Any permit condition non-compliance is an offence and we may take legal action against you. Action we take can include prosecution, serving a notice on you and/or suspension or revocation of your permit. See our Enforcement and Sanctions Guidance for further information.

Data protection notice

You should make sure that anyone named in this report knows that the information it contains will be processed by Natural Resources Wales to fulfil its regulatory and monitoring functions and to maintain the relevant public register(s).

We may also use and/or disclose the report in connection with:

- offering or providing you with our literature or services relating to environmental matters
- consulting with the public, public bodies and other organisations (e.g. 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 our service
- Freedom of Information Act or Environmental Information Regulations requests.

We may also pass it on to our agents or representatives to do these things on our behalf.

Disclosure of information – this report will be available to view on-line

If you think this report contains commercially confidential information that should not be placed on our public register, you must contact your local Natural Resources Wales office within **fifteen working days** of receiving this report, using the contact details in the accompanying email or letter. You must give a full explanation of why it should not be added to our public register, including specifying which information is commercially confidential. We will assess your request and respond to you within 20 working days to let you know if we agree to your request.

What do I do if I disagree with the report or have a complaint?

If you disagree with this compliance assessment report, you should contact the lead officer without delay to discuss your concerns.

If you are unable to resolve the issue with the lead officer or their line manager you should contact our Customer Contact team on 0300 065 3000 (Monday to Friday 08:00 – 18:00), or email enquiries@naturalresourceswales.gov.uk for details of how to raise your dispute further through our Complaints and Commendations procedure.

If you are dissatisfied with our response, you can contact the Public Services Ombudsman for Wales by phone on 0300 7900203 or by email at ask@ombudsman.wales

Welsh Language Standards

We are committed to establishing Natural Resources Wales as a naturally bilingual organisation. We will provide compliance reports in your preferred language.