

Compliance Assessment Report CAR_NRW0038871

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: Site Inspection, Reason: Incident Response (Incident number 2107263).

On 03/09/2021 between 14:30 and 16:30.

Parts of permit assessed: See report

NRW Lead Officer: Stuart Ross.

Report sent to: David Quick, Plant Manager on 29/10/2021.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
H2 - Resource Efficiency - Energy efficiency	Action only (X)	
F2 - Amenity - Noise	Action only (X)	
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
H2	Operator must confirm plans for insulation/cladding of the ID fan and provide timescales in writing if this hasn't already been completed by 03/12/21.	03/12/2021
F2	The Operator must ensure all shell cooler fans, (both fixed and temporary) are included in the next noise monitoring round to include an assessment of whether they represent Best Available Techniques (BAT) by 31/03/2022.	31/03/2022
F2	ACTION: Complete an investigation and ensure an assessment is made at the next quarterly noise monitoring round as to the exact source of noise and whether this is likely to contribute to complaints. The findings shall be reported in writing by 31/12/21.	31/12/2021

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) conducted an unannounced inspection of the Padeswood Cement Works Site and visited local areas as a result of noise and dust complaints on Friday 03/09/21.

Off-site

Prior to attending site between approximately 13:40 and 14:25 a drive around Penyffordd (including Plas yn Rhos, Chester Rd, Bannel Lane and 'The Groves' housing Estate) and Padeswood Lake Road areas was completed to assess noise and dust.

As it was during the daytime local road traffic noise was dominant and the site was not audible anywhere other than at Padeswood Lake Rd. The sound at Padeswood Lake Rd sounded typical to that experienced on previous visits and could be described as a distant fan noise. On this occasion the sound was increasing and decreasing in intensity, possibly due to the wind or fluctuations in emissions from on site plant and machinery. There was also the occasional mechanical noise like metal grating on metal. The sound was punctuated by what sounded like bag filter pulse air jets and air cannon.

In terms of dust, parked cars in these areas were observed. Some were clean (free of dust), some did have a visible layer of dust on the bonnet and roof, others were somewhere in between. Based on observations at the time there was nothing to suggest a major dust release from the installation, but a contribution could not be ruled out.

The Operator was able to retrieve a sample of dust from the car of a complainant on 29/08/21, which was sent for analysis. The car had reportedly been last professionally cleaned on 16/08/21 and the complainant had been on holiday between 21/08/21 and 28/08/21 so was unable to tell whether when the dust had been deposited.

The result of the analysis received on 23/09/21 concluded that much of the material, possibly most of it, was related to cement production. 5% was organic in nature and thus not related to cement production with the bulk being mineral. The mineral particles examined could be divided into cementitious material and other mineral particles. Of the cementitious material all the clinker dust was hydrated which indicates it had been in the environment for some time.

The larger particles were identified as clinker and not cement due to retention of original shape, indicating they had not been milled. Thus, by association it was assumed that all cementitious material was clinker. A few particles of intermediate phases from the kiln were also identified. Other mineral particles were mainly fine limestone, silica, fly ash, feldspar, iron rich particles and of other types including man made mineral fibres. These are

suggestive of raw meal but are also common in the environment.

Two notifications were received from Castle Cement Ltd prior to these complaints; 17/08/21 Cement Mill 3 failure of transport system and 19/08/21 hydraulic fire. It is unlikely that these may be linked to the complaints. Apart from this, the Operator's investigations reported no dust issues over this period. NRW will continue to respond to and investigate any dust complaints.

On-Site

NRW attended the site between 14:30 – 16:30 and met with the Shift Manager to undertake a site walkover. The Shift Manager reported that all plant was operating as normal with no use of Disabs or anything out of the ordinary over the past 4 days/nights. At the time of the visit the Kiln was operational together with Raw Mill and Cement Mill 5.

Kiln ID Fan

The kiln ID fan has recently been replaced, including a new 'alpha' fan blade that has reportedly been used previously. No cladding was in place on the steel duct work and fan casing around the fan probably due to recent replacement / repair work (see photo).

ACTION: Operator must confirm plans for insulation/cladding of the ID fan and provide timescales in writing if this hasn't already been completed by 03/12/21. This is to ensure energy efficiency (Permit Condition 1.2.1(a)) and reduce any potential noise impact.

NRW took a Sound Level Meter measurement at approx. 1m from the rear of the ID fan casing with a result of 93 dB (LAeq), tonal analysis identified no tones using objective method. FFT chart does show some peaks, particularly at 200Hz and some below 50Hz.

It is uncertain whether this would result in tonal noise impact at receptors. The Quality & Environmental Manager confirmed that their acoustic consultant had recently taken measurements from the ID fan when on site. NRW will provide further comment on noise in a separate Compliance Assessment Report.

During the inspection the clinker cooler heat exchanger fans were operating and subjectively didn't appear to be particularly tonal, no measurement was taken. No significant noise was noted from Cement Mill 5.

There was a mechanical noise from a screw conveyer under / in vicinity of the main Kiln bag filter – this may have been the mechanical type sound I heard off site mentioned above. The Shift Manager organised for this to be greased whilst on site.

Kiln Shell Fans

Kiln shell fan No. 8 was operating and was subjectively quite tonal although no measurement was taken. The Shift Manager organised for this fan to be run up and down and it was quite noticeable and distinctive around the kiln area. There were also kiln shell fans positioned on temporary scaffold towards the cooler building but these sounded more broadband.

The Shift Manager reported that during previous off site complaint investigations he has requested that kiln shell fans to be shut down and reports that he never hears any perceptible change in sound level / character.

On 06/09/21 NRW carried out night time sound measurements at Bannel Lane and as part of this exercise shell fan No 8 was started and shut down at our request and our findings concur with the findings of the shift manager.

ACTION: The Operator must ensure all shell cooler fans, (both fixed and temporary) are included in the next noise monitoring round to include an assessment of whether they represent Best Available Techniques (BAT) by 31/03/2022.

Arodo Packer

When walking from the site security lodge towards the main site offices there was a noticeable fan / plant drone but its source was difficult to pin point. The Shift Manager requested that the Arodo packer (Cement packing facility) was stopped and it seemed to result in the sound stopping but it was difficult to tell due to vehicle movements in the area. It was recommended that the Operator investigates items of plant at the cement packing plant to establish where the drone originates from.

This prominent noise was also pointed out during a site inspection on 04/10/21. The filter fan of the packing area mezzanine was listed in the top 10 highest ranking noise sources identified as possible sources of mid-frequency broadband noise from the Environmental Noise Assessment & BPM Audit in August 2020.

ACTION: Complete an investigation and ensure an assessment is made at the next quarterly noise monitoring round as to the exact source of noise and whether this is likely to contribute to complaints. The findings shall be reported in writing by 31/12/21.

NRW met with the Environment & Quality Manager at the end of the visit and passed on the above observations who confirmed that their acoustic consultant's recent monitoring visit included checks at the various receptors around the site and a report was being prepared.

The Environment & Quality Manager said that Shift Managers would visit the location of recent noise complaints over the weekend to monitor sound. NRW advised that an assessment of character and not just sound level be made.

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.