

## Compliance Assessment Report CAR\_NRW0040097

**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:** Audit, Reason: Routine.

On 14/06/2022 between 09:00 and 16:50.

Parts of permit assessed: See report

**NRW Lead Officer:** Lara Cubley, accompanied by Emma Pierce.

**Report sent to:** David Quick, Plant Manager on 27/07/2022.

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

Part of permitted activity assessed (criteria)	Assessment result	Permit condition
G1 - Monitoring and Records, Maintenance and Reporting - Monitoring of emissions and environment	C3 Minor	3.5.1(a)
C2 - General Management - Management system and operating procedures	C3 Minor	1.1.1
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	C3 Minor	4.2.3
E1 - Emissions - Air	Action only (X)	
C4 - General Management - Storage, handling labelling and Segregation	C3 Minor	3.2.1
E3 - Emissions - Surface water	C3 Minor	3.1.1
E5 - Emissions - Waste	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
5	20

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
G1	see Action 1	31/12/2022
C2	see Actions 2, 3, 5, 6, 7, 13 & 14 with associated deadlines	30/09/2022
G4	see Action 4	31/07/2022
E1	See Action 8	31/12/2022
C4	See Actions 9 & 10 with associated timescales	30/09/2022
E3	See Action 11	31/12/2022

Criteria	Action needed	Complete by
E5	See Action 12	30/09/2022

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.

#### **You are non-compliant with your permit.**

**At this time, we are issuing you with a warning for the non-compliance recorded above. Warnings may influence future enforcement response for continued or further non-compliance.**

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

#### **Introduction**

NRW visited the site on 14/06/22 to conduct an Operator Monitoring Assessment (OMA) audit to water and complete the OMA to air for emission points A9 (Cooler), A11 (Clinker Dome) & A12 (Arodo Packer). Several other elements were inspected, and a number of items discussed in relation to actions from previous inspections/reviews. These are documented under 'Inspection Items' and 'Progress with Previous Actions' headings below.

#### **Water OMA**

The full Water OMA Audit report of emission point W1 is attached and shows an overall score of 55%.

Permit non-compliances together with Actions and Recommendations are given under respective headings below.

#### **Permit Non-Compliance**

**The Operator is in breach of Permit Condition 3.5.1(a) Table S3.3 in that the pH & temperature CWM was MCERTS certified but has been modified by removing the temperature probe and replacing it with a separate temperature monitor. This is likely to compromise the pH readings and instrument certification plus the replaced temperature monitor is of unknown certification (G1 Monitoring of emissions & the environment = C3 Minor).**

**ACTION 1:** Use unmodified MCERTS certified pH & temperature monitor by 31/12/22 and let NRW know in writing what equipment has been installed on completion.

**The Operator is in breach of Permit Condition 1.1.1 in that management systems/procedures covering monitoring of water were not available and or lacking in areas (see full OMA**

report). (C2 Management Systems = C3 Minor)

**ACTION 2 (to be completed by 31/10/22):**

- a. A written procedure is required to formally cover the water quality sampling and discharge requirements. This should be available to all relevant staff to follow. PEnv 18 was provided post OMA Audit, however, it is evident this is not in use. Please review and disseminate to relevant staff for use.
- b. Procedure needed to summarise monitoring responsibilities and include all staff involved in monitoring including those involved in maintenance, calibration, and selection of monitoring equipment compliant with the permit.
- c. Monitoring schedule/plan is needed to contain relevant information such as location, duration, time/date of monitoring, methods and procedures used.
- d. A written procedure(s) to cover taking a water sample, the analysis of the samples and associated calibration/maintenance of equipment, and traceability should be developed and disseminated. Provide NRW with such procedure(s) in writing by 31/10/22.
- e. Implement adequate procedures for internal and external quality control, informing NRW of them in writing.
- f. Ensure the auditing programme includes periodic audits of monitoring (both managerial and technical aspects) to ensure personnel are carrying out monitoring in accordance with the sites own documented procedures (includes maintenance). Provide evidence of such a programme to NRW in writing by 31/10/22.

**ACTION 3:** Provide all relevant staff associated with water sampling & analysis with up-to-date training and ensure records are maintained and include refresher training. Please do so by 31/12/22

**Recommendations**

It is recommended that regular maintenance checks are completed to ensure the sample point is free of debris such as leaf litter and vegetation.

Update instruction for calibration of CWM for pH on preventative maintenance work order.

**OMA to Air (A9, A11, A12)**

The full OMA air reports: one for emissions to air from emission point A9 (cooler), and the other for A11 (clinker dome) and A12 (packer), are attached and show an overall score of 76% and 28% respectively.

Permit non-compliances together with Actions and Recommendations are given under respective headings below.

**Permit Non-Compliance**

**The Operator has breached Permit Condition 4.2.3 requiring reporting of monitoring data in accordance with permit monitoring requirements (Table S3.2 – A9). The Operator is not reporting emission in accordance with this, in that an unwarranted correction of x 0.7 is**

**being applied based on 30% uncertainty. (G4 Reporting = C3 Minor)**

**ACTION 4:** Remove the x 0.7 correction applied to all particulate monitoring data reported for emission point A9. To be completed on data submission for period July - September 2022 onwards.

**The Operator is in breach of Permit Condition 1.1.1 in that management systems (procedures/responsibilities) for monitoring, calibration, maintenance, data review and reporting of emission points A11 & A12 for particulates are not available. (C2 Management Systems = C3 Minor consolidated)**

**ACTION 5 (to be completed by 31/12/22):**

- a. The Operator must introduce regular maintenance and calibration checks in accordance with the manufacturer's recommendations and EN15859 for A11/A12.
- b. The Operator must ensure monitoring of A11/12 for particulates is included as part of the EMS and develop formal procedures/responsibilities for all aspects of this monitoring as above with responsibilities apportioned. Provide a summary of EMS improvements/procedures to NRW in writing.
- c. The Operator must undertake a review of the provisions for monitoring at A12 against EN 15259 Section 6.2.1 and provide a plan of ductwork, fans and triboelectric monitoring probe together with measurements to NRW in writing by 31/12/22.

**ACTION 6:** The Operator must investigate the A11 monitor and confirm whether the Burst Bag alarm for Redecam viewed in the main control room is in fact the triboelectric probe set up as required by IC2 and demonstrate the alarm set point together with minute-by-minute logging. Provide a summary of actions taken to NRW in writing by 31/12/22.

**ACTION 7:** Introduce formal procedure for audit and compliance to confirm the use of tribo probes (A11/12 particulates) continue to be a reliable alternative technique to standard extractive monitoring or continuous monitoring technique in demonstration of compliance with the ELV. Ensure an annual report as required to address this action is provided to NRW annually commencing 31/01/23.

## **Inspection Items**

### **Raw Mill rejects building**

Work to fully enclose the rejects building has been completed. However, the roller shutter door is still not in service due to damage to the guides down the sides.

**ACTION 8:** The Operator must undertake necessary work to ensure appropriate dust control measures are implemented to prevent escape of dusty material from the doorway by 31/12/22.

**Recommendation:** If the Operator is to keep a roller shutter door design, it is recommended that damage protection to roller shutter door guides be explored.

### **Coal/shale storage area**

The coal storage shed area was inspected to establish the location of discharge of drainage from this area via limestone dams to the tributary of the Black Brook. Please note that this is currently

an unauthorised emission point (not listed in the permit).

At the time of the inspection, it was dry and there had been no recent significant rainfall. No flowing discharge from the horseshoe ditch around this area directly to the tributary of the Black Brook was noted at the time of the inspection. There was some standing water in sections of this horseshoe ditch which had recently been cleared of sediments. This was held back behind the limestone dams with some sediment in front of the dam. The ditch is reportedly unlined. A source of contaminated rainfall in contact with coal/shale with potential to produce contaminated run off is present. This has a pathway to ground/groundwater and as run-off via the ditch to the tributary of the Black Brook during times of rainfall/run-off.

This area has not been operated in accordance with the application, which means that there is potential for ground/groundwater and surface water contamination. Coal storage is not contained within the building but has escaped push walls out the sides of the building. There is a programme to replace some push walls. A large stockpile of shale is also stored outside the coal shed to the east with potentially contaminated surface water run-off from this area discharging to this horseshoe ditch. The Operator reportedly no longer utilises shale in the process, and we understand there are no plan to do so in the foreseeable future. There is also a stockpile of coal rejects in front (west) of the coal shed not stored under cover.

In the area to the east of the coal shed is an underground concrete constructed sweeper pit containing a number of weirs with a final outlet pipe which reportedly discharges to the horseshoe ditch. The discharge of effluent from this activity is not authorised under the permit.

**NRW is of the opinion that storage of coal/shale outside of the building and not on accordance with the permit application is a breach of Permit Condition 3.2.1 (C4 Storage = C3) with the potential for minor pollution.**

**ACTION 9:** Cease storing any more coal or shale externally and discharging from the sweeper pit with immediate effect.

**ACTION 10:** The Operator must provide NRW with a plan in writing on how he proposes to come back into compliance with storage arrangements of all coal/shale/iron oxide within the coal shed by 30/09/22.

**NRW is of the opinion that the sweeper pit discharge and run-off from the coal shed area to a tributary of the Black Brook is an unauthorised emission and breach of Permit Condition 3.1.1 (E2/E3 Emissions to land/water = C3).**

**ACTION 11:** The Operator must apply for a permit variation to include the emission point to surface water from the horseshoe ditch by 31/12/22. Depending upon decisions regarding proposed operations the treated sweeper effluent should be included in the permit variation application.

### **Soils rubble stockpile**

To the North of the coal store building there is a huge stockpile of soils and rubble.

**ACTION 12:** The Operator must inform NRW in writing where this material came from and what it plans to do with the material by 30/09/22.

**Abandoned plant/machinery**

On the approach to this stockpile some abandoned plant/machinery was noted to the side of the access. Some of which contained lagging which could be asbestos. This was pointed out to the operator. See action 13.

**Recommendation:** It is recommended that the operator investigate the nature of the lagging and act appropriately on findings.

**Progress with Previous Actions****Cemfuel tank abatement**

The Operator is currently scoping out a new vessel for the carbon media. The 100% redundancy for this action will then be completed.

**Compensator failure repair (CAR37269 Action 2)**

Thermal imaging of feeder pipes/cyclones conducted since October 2021 were inspected. The Operator will conduct the permanent repair during the summer shutdown which doesn't yet have a confirmed date.

**Mill 5 Tank bund**

The Operator reported that the modifications to address a previous action on bunding of Mill 5 tank will be conducted during July.

**Cement additive tank actions (CAR37514 Action 1 & CAR39520)**

The Operator reports that they have completed this action apart from assessment of ground contamination and associated decontamination which will be completed with the transformer work. As part of these actions a similar tank 30,000 litre grinding aid tank was decommissioned.

The Operator also reported that further to their review of procedure UKCP04 they have been taking steps to comply with the procedure. Inspections of tanks are on SAP as a preventative maintenance task. Operations are to inspect the tanks on a quarterly basis and after periods of heavy rain with an annual inspection by engineering. There is currently a lack of process/procedure surrounding decommissioning of tanks. See Action 13.

**Noise**

The Operator reported that quarterly noise monitoring is due to take place next week, weather permitting. Cladding to kiln elevator gear box is now completed so they will be able to monitor this to see a difference.

The Operator is planning significant work to the cooler heat exchanger in January 2023 but confirmed this does not include the fans. The Operator was reminded of the importance in meeting the action of completing a BAT review of these heat exchange fans by the agreed extension date of end of September 2022. The Operator is reportedly exploring other improvement options such as increasing the difference in speed between the fans further and limiting the big dips in speed. The Operator is also investing in a recording device on the SLM. This is to enable recordings to be sent to the specialist contractor for review of complaint recordings.

NRW requested confirmation regarding CM5 elevator motor attributed to identified tonal noise during 28/29 March monitoring having been swapped. The Operator confirmed this was in fact the motor on BF03 filter fan for de-dusting the elevator.

The recent noise complaint related to the by-pass system vibrators was discussed. The Operator reported that this shouldn't be a problem when material is present.

#### **Dust audit (Actions 11, 13 – 16)**

NRW followed up on actions related to review of preventative maintenance on filters. The Operator is behind with completing these actions. The Operator reports that they underestimated the time taken to complete this task given the number of filters they have on site. A purchase order was raised with a contractor to help the execution team to complete this action. The Operator estimates that this work will be completed in a couple of months. An information spreadsheet with essential information on site filters was presented but is yet to be completed. It was noted that this spreadsheet does not include information related to number of compartments or dampers. The Operator agreed that it would be wise to include this. NRW will re-inspect completion of these actions in the Autumn.

#### **Redundant plant assessment**

NRW followed up on progress with recommendations made in the report, '*CAR Action 12: Completion of an Inspection of the Redundant Equipment and Tanks and a Review to Assess the Adequacy of the Pollution Prevention Control Measures in Place*,' April 2020. The Operator is yet to complete the recommendations in this report. Some of this work ties in with the review of procedure UKCP04 (old unused tanks at the site) and transformers. There is a lack of process/procedure surrounding decommissioning of tanks or equipment which poses a risk to the environment.

**NRW considers this a breach of Condition 1.1.1 as the management system fails to identify and minimise this risk (C2 Management Systems = C3 Minor consolidated).**

**ACTION 13:** The Operator is to develop procedures to manage and minimise the environmental risk posed by equipment which is mothballed or no longer used by 31/12/22. Provide a copy of such procedures in writing to NRW by this date.

**ACTION 14:** The Operator shall provide a plan confirming dates by which the recommendations in the redundant equipment/tanks April 2020 report above will be completed in writing to NRW by 30/09/22.

#### **Other**

- The operator has been looking at Mercury monitoring requirements in relation to carbon capture, which should mean the emissions would be low and stable.
- The Operator's Electrical Engineer went over coal Pfister calibration in relation to the incident of 29/01/22.

#### **Future Plans**

- SRF to kiln burner – the docking station and building may provide some noise screening for the clinker cooler heat exchanger. A permit variation will be required.
- Blast furnace slag – the Operator is required to address NRW's comments on this proposal.
- BF41 replacement planned for 2023

- Improvements to kiln outlet seal planned 2024

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](mailto: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](mailto: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.