

## Compliance Assessment Report

Report ID:  
CAR\_NRW0035686

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

Site	Padeswood Cement Works	Permit Ref	BL1096IB			
Operator/Permit holder	Castle Cement Limited					
Regime	Installations					
Date of assessment	04/09/2019	Time in	09:00	Out	16:30	
Assessment type	Site Inspection					
Parts of the permit assessed	Various					
Lead officer's name	Ross, Stuart					
Accompanied by						
Recipient's name/position	Murat Burakcin/ Plant Manager	Date issued	19/09/2019			

### 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
A1 - Specified by permit	C3	2.3.1
C2 - General Management - Management system and operating procedures	C3	1.1
E1 - Emissions - Air	C3	3.1.2
	C3	3.1.1
G4 - Monitoring and Records, Maintenance and Reporting - Reporting and notification to Natural Resources Wales	C3	4.3.1

**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	5	Total compliance score (see section 5 for scoring scheme)	20
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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 follows a review of Actions relating to Compliance Assessment Report ID CAR\_NRW0035180 as issued 28/05/19 and follows a site inspection 04/09/19. It also covers a review of notifications (Part A&B) and incidents.

### **1. Dust Control**

#### **Action 1**

*'Castle Cement shall complete a review of the existing control measures for diffuse dust emissions from dusty operations against the relevant techniques as set out in the Cement, Lime and Magnesium Oxide Bref and BAT Conclusions Documents. Submit the findings of your review to NRW along with proposed timescales for the completion of any necessary improvement works to ensure the plant achieves BAT. Submit your report by 31/07/19'.*

In response to this action a BAT matrix was provided to NRW broadly assessing the dust control measures in place for plant operations. The control measures detailed on the matrix are those included in BAT Conclusion 14 a – j.

When read in conjunction with the revised Dust Management Plan (detailed below) it is possible to gain a more detailed understanding as to the specific control measures in place, but this is still limited in many areas given the complexity of the process and nature of site infrastructure.

**Further Action Required** - A more detailed assessment (description of the control measures for each component part of each activity) is required to adequately demonstrate BAT is in place as required by the original action. A revised assessment shall be submitted to NRW by 31/10/19.

Please also consider the following comments when providing your response.

- For BAT C, the matrix says that BAT is met for the limestone intake, whereas based on the site inspection it was noted that the conveyer is not fully enclosed and there were piles of dusty material accumulated under the conveyer.

- The matrix says that BAT B is met for the Coal store when operations such as screening are taking place.

- For BAT C the matrix says that BAT is met for the raw mill feed although during the inspection (and as stated in the dust management plan) BC01 is not enclosed and piles of dust were noted on the floor under the belt. It was also noted that the ground under the belt consists of chipped limestone and cannot be easily cleaned/swept. Whilst the dust management plan states that the transfer point benefits from de dusting this was not certain when inspected on site.

- Where a BAT control measure is not in place e.g. BAT H for the Crane Bay, no explanation /justification has been provided.

- Whilst some control measures are clearly not applicable to some activities, the use of 'N/A' should be justified where it may conceivably be applicable e.g. BAT D limestone intake.

- The improvement comments table shall be developed to clearly state Castle Cement's intentions regarding the improvements required to meet BAT, including those potentially associated with the bypass dust system replacement project (new loading head, removal of rough ground, enclosure of adjacent conveyers etc.).

#### **Action 2**

*'Close all doors on dusty operations'.*

(Ongoing requirement)

### **Action 3**

*'Ensure defective/absent doors and cladding for the enclosure of dusty operations are repaired or replaced– provide NRW with an action plan with associated timescales for the completion of this work. Submit you action plan by 07/06/19.*

In response an Action Plan titled 'Containment Door Action Plan for Environmental Compliance' was developed with prioritised and phased completion dates with the final phase to complete by 31/07/19.

During the site inspection it was reported (and observed) that a number of small man doors have not been replaced within the timescale specified within the plan owing to the contractor being involved in completing work on Cement Mill 5.

**Further Action Required** – Complete the installation of doors without delay and provide NRW with photographic evidence by 31/10/19 to confirm that the requirements of the original action have been met.

### **Action 4**

*'Review the site's planned preventative maintenance programme for the maintenance of doors and cladding and the detection and repair of defects to ensure doors and cladding are consistently maintained to a satisfactory standard. Provide NRW with the findings of your review and remedial actions taken by 28/06/19'.*

Castle Cement report the site strategy for highlighting issues with doors and cladding is via reliance on the shift managers routes (twice daily checks on defined areas of the plant).

Castle Cement also reports that the 'Clean Site Safe Site' initiative has recently been introduced whereby a named employee is appointed responsibility for compliance for a defined area of the site. A checklist (ref OP002.F2\_rev1 is used to complete a monthly audit of these areas and actions added onto the sites corrective maintenance system.

**Further Action Required** - NRW does not object to this approach provided the checklist OP002.F2\_rev1 is amended to include checks on the integrity of buildings (e.g. walls cladding/roofs) of buildings/structures containing dusty operations. Please amend the checklist with immediate effect.

### **Action 5**

*'Provide training to relevant site staff and contractors to ensure doors on dusty operations are kept shut unless required for access/egress and on the procedure for reporting defects. Update the site induction process and training plan for new and existing employees and contractors accordingly. Provide NRW with a summary of the steps you have taken/intend to take to meet this action by 07/06/19'.*

Castle Cement confirmed their intention to develop a toolbox talk for staff and include dust management and abatement in the site induction.

**Further Action Required** - implement the revised training requirements by 31/10/19.

### **Action 6**

*'Review your Dust Management Plan (also taking into account feedback provided by NRW 08/03/19) and submit to NRW by 28/06/19'.*

Document 'Padeswood Cement Operating Procedures PG10 Control of dust not controlled by emission limits' received by NRW 05/07/19.

Refer Appendix 1 for NRW Comment on this procedure (comments were discussed during the inspection).

**Further Action Required** – Review your Dust Management Plan (taking into account feedback provided by NRW) and submit to NRW by 31/10/19.

## **2. Part A & B Notifications (Dust)**

### **Cement Mill 5 Elevator 22/03/19**

A visible release of dust from the Cement Mill 5 elevator bag filter on 22/03/19 was reported retrospectively to NRW

05/06/19 following correspondence regarding a dust complaint 25/03/19.

Schedule 3 (table S3.1) of the permit sets out emission limits including for vents from small sources (such as this) of particulate matter (<10,000m<sup>3</sup>/hr). The emission limit values for such vents is 10mg/Nm<sup>3</sup> and if visible dust was observed from the filter this indicates that the emission limit has been exceeded and we would therefore expect to receive a Schedule 5 notification within 24hrs.

Castle Cement received a direct dust complaint 25/03/19 and a sample was collected from the reporter's property. Subsequent analysis identified that a proportion of the dust on the sample originates from cement production that may relate to this incident.

A Part B notification was subsequently received reporting that the shift process operator identified visible dust coming from the filter on Cement Mill 5's reject elevator, the shift manager was informed, and the mill was immediately stopped. During the stop the filter was inspected, a damaged bag was found and replaced that corrected the problem. The filter is inspected as part of the shift managers 'tour' but following the construction of the mill no formal PMs for the filter have been added to the maintenance system that require a more detailed inspection of the filter system.

**Action** - Ensure adequate PM checks are put in place for all bag filters on Cement Mill 5 by 31/10/19.

The breach of emission limit is a breach of permit condition 3.1.2 with potential for minor environmental impact (CCS3)..

Failure to notify NRW of the emission limit exceedance is a breach of permit condition 4.3.1 (CCS3).

**Action** - Review procedure for notifications and ensure staff are adequately trained to ensure compliance with the requirements of section 4.3 of your permit. Provide NRW with a summary of the action you have taken by 31/10/19.

#### **Kiln Outlet / Cooler Building 29/03/19**

On 29/03/19 Castle Cement reported a release of an estimated 100kg of dust from the kiln outlet / cooler building, 90% of which was reportedly contained within the cooler building. The kiln was stopped and there were no complaints associated with this incident.

The part B notification reports that the kiln became unstable due to sudden changes in chemistry [causing a small kiln flush], this was triggered due to an unrepresentative sample of kiln feed being used for adjustments to the shale dosing of the kiln.

The control philosophy for controlling shale on the kiln has been changed.

This incident is a breach of permit condition 1.1 (General Management) in so far that the management system did not minimise the risk of pollution arising from the operation of the kiln (CCS3).

No further action required.

#### **Kiln Inlet 17/12/18**

Castle Cement reported a release of an estimated 200 Kg of raw meal from the kiln inlet seal originally believed to be linked to a upset of the kiln chemistry (kiln ring). It appears highly likely that a dust complaint from a local resident is linked to the incident. A dust sample collected from a vehicle contained material that is likely to be from the kiln.

A Part B was subsequently received reporting that an inspection of the kiln found that the kiln inlet tray was damaged

Following the incident the kiln was stopped and the kiln inlet had temporary refractory repairs completed. Annual preventative maintenance was carried out January 2019 to fully restore the kiln inlet tray.

Following subsequent correspondence regarding this incident it was confirmed that damage to the kiln inlet tray may lead to more hot meal entering the kiln inlet seal that ordinarily dispenses to the 'dust room' where it is contained. It appears that on this occasion the kiln inlet seal / kiln inlet area became overwhelmed with material causing a release to air.

The operator reports that the root cause of the inlet tray damage is not known and it is difficult to identify. This area of the kiln is very aggressive and possible causes include excessive heat, alkali attack, material failure or installation errors.

The operator uses a pre-case inlet tray which is reportedly the best option available. The inlet tray is inspected during

planned shutdowns and repairs made if necessary. It is replaced annually.

The release of dust from the kiln inlet seal is a breach of permit condition 3.1.1 (CCS3).

#### **Kiln Feed Silo L1 – dust release 29/08/19**

Please submit your Part B notification by 31/10/19.

### **3. Pollution Prevention and Waste Management**

#### **Action 7**

*'Please provide the reasons why you believe this tank [the Cement Mill 5 diesel tank] to be adequately bunded with reference to CIRIA Guidance Note C736 'Containment Systems for the Prevention of Pollution'. Please do so by 28/06/19'.*

**Further Action Required** - Action 7 has not yet been completed – the operator has sought 3rd party advice to address this action. Information required without delay As agreed, the original requirements of this action shall be met no later than 31/10/19.

#### **Action 8**

*'Contain the oil spill and prevent further leakage from the transformer. Remove contaminated soils/stones beneath the equipment including any residues in the adjacent drainage system. Samples should be obtained to ensure and demonstrate that the contamination has been removed from the ground. The destination of the drain adjacent to the transformer shall be established. A report shall be submitted to NRW by 28/06/19 demonstrating that the requirements of this action have been completed'..*

The operator reports that 'all material around the bottom of the transformer has been removed, in addition during excavation it was found that the transformer base is actually made of concrete, therefore it is unlikely that any further ground contamination has occurred'.

**Further Action Required** - The original requirements of action 8 shall be met no later than 31/10/19.

#### **Action 9**

*'Inform NRW if PCBs are present in this or any other transformers present on site by 28/06/19'*

**Further Action Required** - The response to action 9 shall to be included within the report as per action 8.

#### **Action 10**

*'Undertake an inspection of all electrical transformers (in use or otherwise) to assess pollution risk and the adequacy of the pollution prevention control measures in place. Provide a report of your findings to NRW by 31/07/19'.*

In response to this action the operator supplied a table detailing the findings of an inspection of the transformers and the site's transformer register. The inspection identified some oil leaks deemed historic, recent or of an undermined date.

It was reported that it has been difficult to identify if and where any leaks are coming from. In order to fully assess the presence of leaks all transformers are to be steam cleaned by 16/09/19. Once cleaned further assessment will be made at a suitable frequency in order to assess in depth if any leaks are present, further control measures will be implemented if required.

Castle Cement also report that there are known issues with transformer 3 and 4, and the plant is awaiting a suitable time where these transformers can be powered off in order to carry out a more thorough inspection, of which will also include cleaning activities as mentioned above.

In the meantime, the plant has formulated a scope of work which will rectify any problems found, of which falls under CAPEX which is pending approval to be spent late this year or early next. This will include the removal of two old transformers (T1 and T2) and will cover replacing or refurbishing T3 and T4, once approval for expenditure has been granted a finish date can be provided.

**Further Action Required** – Provide a full response to the original Action 10 to NRW by 31/10/19. This is to include details of the pollution prevention measures in place (e.g. concrete hard standings, bunds) and where contamination of

the ground has occurred a program of remedial works.

### **Action 11**

*'Review the site's planned preventative maintenance programme for the maintenance and inspection of transformers to ensure they are maintained to a satisfactory standard. Provide NRW with the findings of your review and remedial actions taken by 31/07/19'.*

Castle Cement report that 'there are currently two PMs which exist for the transformers on site, the first occurs every 6 months and is a thermographic assessment, although this doesn't specifically cover leak checks any significant leaks would be highlighted during the time of the survey. The second PM is an annual oil analysis survey, of which does specifically cover the integrity of each transfer from a leak perspective'.

Failure to carry out periodic integrity checks on transformers (containing potentially polluting liquids) as part of a planned preventative maintenance system is a breach of permit condition 1.1 (CCS3).

Castle Cement report that 'to further improve the control measures in place for leaking transformers a new PM will also be added onto the system, the frequency of this will be every 3 months and will be carried out by Hanson staff. The scope of work for this PM will be predominantly aimed at leak checks, the scope of work for this will be formulated by the electrical engineer'.

Action Complete.

### **Action 12**

*'Castle Cement shall undertake an inspection of redundant plant and machinery to assess pollution risk and the adequacy of the pollution prevention control measures in place. Provide a report of your findings and any necessary remedial measures (to ensure permit compliance) to NRW by 31/07/19'.*

Castle Cement report that in order for this task to be carried out to an expert level of competence they intend to contract it out to a consultant working in conjunction with a site representative. Findings and actions will be formulated through the 3rd party taking into account a risk-based approach.

This action has not been met.

**Further Action Required** – Castle Cement shall meet the requirements of Action 12 by 31/10/19.

### **Action 13**

*'Please provide NRW with the following information by 28/06/19:*

*- The design specification of the mushroom valve as previously installed, and its air flow rating as compared to the maximum air flow rates achieved through the carbon filter.*

*Your Management of Change procedure for Environmentally Critical Equipment and how this was applied to the modification to the carbon filter outlet.*

*The carbon media replacement date*

*The frequency of future carbon media testing (as per the PM schedule)*

*The monitoring in place to monitor filter performance between media testing'.*

Castle Cement reported that 'management of change document wasn't applied for the replacement of the seal on the filter outlet, this is because the alteration made is classed as corrective/preventative maintenance. We are still awaiting for a company to be added onto Hanson's purchasing systems who can change the carbon filter media, in addition a PM will be added into the site's maintenance system ..for Cemfuel carbon filter media to be checked and tested..6 monthly. Depending on test results the media should be changed,

Failure to maintain the carbon filters has previously been found to be in breach of permit - refer CAR\_NRW0035686.

Failure to apply management of change processes to a modification of environmentally critical equipment that may lead to an environmental impact is a breach of permit condition 1.1. CCS3.

**Action** - Review the management of change procedure to ensure that the triggers for initiating the management of change process are suitably set to prevent changes to any environmentally critical equipment being made that may reduce the effectiveness of those control measures. Provide NRW with the findings of your review and the changes

made by 11/10/19.

**Action** - Cemfuel carbon filter media to be replaced by 29/09/19 (at the latest). NRW to be informed when this action has been completed..

### **Operating Techniques**

With reference to permit condition 2.3.1. the activities shall, subject to the conditions of the permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by Natural Resources Wales.

The operating techniques (refer schedule 4 response 2002, section 2.3 BAT p 48 of 147) state that '*excess vapour venting (e.g. diurnal 'breathing' of the tanks) will be vented to atmosphere via a carbon adsorption abatement system – designed with 100% redundancy built in to avoid the possibility of any vapour emissions to atmosphere whilst replacing spent charcoal units*'.

Currently, the two carbon filters are operating in series (vapour passes through both filters prior to release to atmosphere) and therefore there is no built in redundancy as stated in the application. This is a breach of permit condition 2.3.1 CCS3 - site warning.

**Action** - Review the operation of the carbon filter adsorption system against your permit application and take all necessary steps to ensure the permit requirements are met. Provide NRW with a summary of your actions by 31/10/19.

### **Action 14**

*'During the inspection a grey pipe was noted exiting the top of a tank (possibility the bund water holding tank) in the Cemfuel tank farm and running over the bund wall onto unmade ground to the rear of the tank farm. No discharge or evidence of any discharge of liquids was observed. The purpose of this pipe is not clear and must be clarified by Castle Cement by 28/06/19'*

Castle Cement report that 'this is an overflow from the surface water tank, and that it poses no immediate risk as the system is not currently used and in addition the valve on the discharge pipe has been closed. However, it will be arranged for this overflow to be redesigned, possibly to return to the inside of the bund.

It was subsequently been confirmed that the pipe has been physically isolated (flange removed) to remove the pathway.

### **4. Improvement Condition IC6 and IC7**

NRW will forward a response to Castle Cement's initial submission by 20/09/19.

**Action** - Castle Cement to provide NRW with proposed timescales for the completion of these Improvement condition items for agreement. Please do so by 31/10/19.

## EPR Compliance Assessment Report

**Report ID:  
CAR\_NRW0035686**

**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	Date	04/09/2019

### 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	31/10/2019
E1	C3	Remedial Action Complete	19/09/2019
G4	C3	Refer Details Section	31/10/2019
C2	C3	Refer Details Section	31/10/2019
A1	C3	Refer Details Section	31/10/2019



## 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.