



EPR Compliance Assessment Report

Report ID: BL1096IB/0186962

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							
Date	01/08/2013				Time in	11:00	Out	13:50
What parts of the permit were assessed	Various							
Assessment	Site Inspection	EPR Activity:	Installation	X	Waste Op	Water Discharge		
Recipient's name/position	Gary Young							
Officer's name	Stuart Ross				Date issued	15/08/2013		

Section 1 - Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations. A detailed explanation and any action you may need to take are given in the "Detailed Assessment of Compliance" (section 3). 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			Condition(s) breached
a) Permitted activities	1. Specified by permit	A	
b) Infrastructure	1. Engineering for prevention & control of pollution	N	
	2. Closure & decommissioning	N	
	3. Site drainage engineering (clean & foul)	N	
	4. Containment of stored materials	N	
	5. Plant and equipment	N	
c) General management	1. Staff competency/ training	N	
	2. Management system & operating procedures	C3	1.1
	3. Materials acceptance	N	
	4. Storage handling, labelling, segregation	N	
d) Incident management	1. Site security	N	
	2. Accident, emergency & incident planning	N	
e) Emissions	1. Air	N	
	2. Land & Groundwater	N	
	3. Surface water	N	
	4. Sewer	N	
	5. Waste	N	
f) Amenity	1. Odour	N	
	2. Noise	N	
	3. Dust/fibres/particulates	N	
	4. Pests, birds & scavengers	N	
	5. Deposits on road	N	
g) Monitoring and records, maintenance and reporting	1. Monitoring of emissions & environment	N	
	2. Records of activity, site diary, journal & events	N	
	3. Maintenance records	N	
	4. Reporting & notification	A	
h) Resource efficiency	1. Efficient use of raw materials	N	
	2. Energy	N	

KEY: C1, C2, C3, C4 = CCS breach category (* suspended scores are marked with an asterisk),
A = Assessed (no evidence of non-compliance), N = Not assessed, NA = Not Applicable

Number of breaches recorded	1	Total compliance score (see section 5 for scoring scheme)	4
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If the Total No Breaches is greater than zero, then please see Section 3 for details of our proposed enforcement response

INITIALS	DATE
OK FOR PUBLIC REGISTER	SR 18/9/13
COPIED TO PUBLIC REGISTER	JB EDRm

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 (e.g. 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 suspended or consolidated scores.
- details of advice given
- any other areas of concern
- all actions requested
- any examples of good practice.
- a reference to photos taken

This report should be clear, comprehensive, unambiguous and completed within 14 days of an assessment.

This Compliance Assessment Report follows a site meeting on 01/08/13 to primarily discuss a dust release due to a kiln flush on 25/07/13.

The incident occurred at approx 0930 and a part A notification was received shortly after the event.

Dust was largely contained within buildings with an estimated 50 - 100 Kg of dust released to atmosphere. It appears that the majority of the emission was contained on site, mainly in the region of the clinker cooler and kiln outlet. During my inspection on 25/07/13 (shortly after the kiln flush) small releases of dust were evident from the kiln end seals and it appeared that a significant proportion of the dust had been contained in the clinker cooler building.

Three complaints from members of the public were received by Natural Resources Wales reporting a plume of dust on site but no complaints / reports were received regarding off site dust deposits. The potential offsite impact is deemed to be minor.

A 'Part B' notification as required by the permit was received 01/08/13 and discussed as part of this inspection. The notification states the following;

One thermocouple is located in the riser leaving the stage 5 cyclone and going up to stage 4. The other thermocouples are located on the roof of cyclone 5 which controls the calciner fuel feed rate. The values from these thermocouples are averaged to give a single figure to control the fuel feed to the calciner.

At the time of the incident one of the two thermocouples had been de-selected from the averaging calculation. This was due to the reading being much lower than expected. Whilst all 3 temperature readings are displayed the calciner control loop was running on one thermocouple (the one that was believed to be correct). The temperature indicated by this thermocouple started to increase gradually resulting in the coal feed reducing to its minimum. The kiln controller was monitoring temperature and seeing that the indication continued to rise, started to reduce the amount of SRF being burnt.

This course of action was contrary to what was actually occurring, as the temperature was in fact falling, these actions therefore contributed to the rapid cooling which caused a flush of the kiln.

The failure of the thermocouple was extremely unusual as they are designed to fail to a maximum figure thereby allowing them to be removed from the control loop. The thermocouple gave a continuous but steadily increasing value.

This sent unprepared meal through the kiln and into the cooler and started to pressurise the system. As the temperature of the waste gas from the cooler increased the automated cold air bleed damper opened to regulate the temperature of the gas to the cooler bag filter.

Conditions in the cooler then changed rapidly and the maximum temperature for the bag filter was reached causing the cooler waste gas fan to trip and an emission from the kiln outlet and cooler occurred. Following this the controller stopped the kiln and reset the fans and dampers to re-establish suction in the system.

Action taken by Castle Cement -

Thermocouples in use have been removed and replaced the new ones.

The control function will continue to utilise an average facility, with options for deselecting individual probes, however individual values will be used for alarm and control functions in respect of low temperatures as these are the conditions that can lead to kiln flush.

The protection temperature for the cooler bag filter has been reduced from 210 to 205 degrees Celsius. This will allow the cold air bleed damper to open sooner and should further minimise the potential for dust releases from the

cooler waste gas fan.

It was also discussed that the kiln operator may have made a more informed decision about which thermocouple to select for controlling the calciner fuel feed rate by looking at other temperature readings / process data for the kiln / preheater system. This may have avoided the operator selecting the defective thermocouple thereby avoiding this incident. The site manager has reported that this incident has been discussed with kiln operators to highlight steps that should be taken to prevent a recurrence.

Action - Please ensure kiln operating instructions / staff training is amended as appropriate.

Permit condition 1.1.1 requires that the site is managed in accordance with an EMS that identifies and minimises risks of pollution, including those arising from operations and that the site is managed and operated by sufficient competent persons.

Whilst the thermocouple mode of failure is reportedly unusual, it is considered that further reasonable steps (as detailed above) could have been taken to reduce the likelihood of this incident occurring. This incident is a breach of permit condition 1.1.1 and attracts a CCS score of 3.

Other Issues

- a) Please confirm cement line replacement work is complete.
- b) CEM fuel storage - please confirm when the carbon filters were last replaced and how replacement frequency is determined. Also please ensure drip trays and small spills are cleaned up as soon as possible to reduce potential odour from this area.
- c) Thank you for providing a draft copy of procedure PEnv18 for sampling the surface water lagoon discharge. The procedure should be implemented as part of your EMS.
- d) Please finalise your acoustic camera / off site monitoring / noise management plan by end of August 2013. The report will be the focus of the next site inspection. Please keep me up to date with progress with regards installing noise abatement measures to the kiln shell fans.
- e) Following equipment failure urgent action is required to ensure CCTV footage (process areas) is recorded - please keep me up to date with progress.
- f) Please provide the minutes of the last liaison meeting.



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Site	PADESWOOD CEMENT WORKS	Permit	BL1096IB
Operator/ Permit	Castle Cement Limited	Date	01/08/2013

Section 3- Enforcement Response

Only one of the boxes below should be ticked

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.	
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.	X
We will now consider what enforcement action is appropriate and notify you, referencing this form.	

Section 4- Action(s)

Where non-compliance has been detected and an enforcement response has been selected above, this section summarises the steps you need to take to return to compliance and also provides timescales for this to be done.

Criteria Ref.	CCS Category	Action Required/Advised	Due Date
See Section 1 above			
C2	C3	Kiln flush - Refer to details section for required actions.	As per details section.

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 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 which 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 fulfill 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 (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 and taking any resulting action
- preventing breaches of environmental law
- assessing customer service satisfaction and improving its service
- Freedom of Information Act/Environmental Information 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 twenty 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 the officer's line managers. 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. 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.

