Schedule 5 - Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the PPC Regulations.

Part A

Permit Number	**EPR/BL1096IB/V010**
Name of operator	**Castle Cement Limited**
Location of Installation	**Padeswood Works, Padeswood, Mold.**
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or fugitive emission which has caused, is causing or may cause significant pollution	
To be notified within 24 hours of detection	
Date and time of the event	**25 July 2013, 9:30 a.m.**
Reference or description of the location of the event	**Kiln system over pressurisation.**
Description of where any release into the environment took place	**Cooler, CV01.**
Substances(s) potentially released	**Dust and fumes.**
Best estimate of the quantity or rate of release of substances	**Largely contained within buildings, 50-100kg dust to atmosphere.**
Measures taken, or intended to be taken, to stop any emission	**Kiln system shut down.**
Description of the failure or accident.	**Failure of temperature probe on Cyclone 5 caused the control loop to reduce fuels to calciner in order to bring the apparent temp back into control. This is induced a kiln flush.**

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

2 out of 3 thermocouples operational
Can be changed out by shift electrician
Human error - other information was available
to show kiln was cooling - EMS.

	INITIALS	DATE
OK FOR PUBLIC REGISTER	SRC	15.8.13
COPIED TO PUBLIC REGISTER	JB	EDRM

Time periods for notification following detection of a breach of a limit	
Parameter	**Notification period**

(c) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B - to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	There are a number of thermocouples that monitor the temperature of the gas in stage 5 of the preheater tower. One of these thermocouples is located in the gas riser leaving stage 5 and going up to stage 4. This leaves the other thermocouples in the roof of cyclone 5 in operation for the control of the calciner fuel. The values from these thermocouples are averaged to give a single figure that is used 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 only running on one thermocouple. (The one that was believed to be most-likely correct) The temperature indicated by this thermocouple started to increase gradually, resulting in the coal feed to the calciner reducing to its minimum of 1.0 tph. The kiln controller was monitoring the 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 a rapid cooling which caused a flush on 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 correctly taken out of the control loop. This 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 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.		
Measures taken, or intended to be taken, to prevent a recurrence of the incident	The thermocouples that were in use have been removed and replaced with new ones. The control function will continue to utilise an average facility, with options for de-selecting individual probes, however the 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 potential. The protection temperature for the cooler bag filter has been reduced from 210°C to 205°C. 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 from.		
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	The emission was limited and contained on site, mainly in the region of the cooler and kiln outlet. The material was cleaned up as part of the normal housekeeping routines on plant.		
The dates of any unauthorised emissions from the installation in the preceding 24 months.	31/07/2011	07/03/2012	23/07/2012
	05/08/2011	12/03/2012	07/10/2012
	12/08/2011	14/03/2012	25/10/2012
	15/08/2011	20/04/2012	27/10/2012
	22/09/2011	03/05/2012	29/10/2012
	30/09/2011	23/06/2012	28/02/2013
	07/11/2011	23/06/2012	07/07/2013
	21/02/2012	27/06/2012	11/072013
	06/03/2012	27/06/2012	18/07/2013

Name*	N Sharpe
Post	Quality and Environment Manager - North
Signature	

Date	1 August 2013

* authorised to sign on behalf of Castle Cement Limited