

UNITING RETURNS IN. W.H. 10

INITIALS DATE

Permit Reference Number: BL1096IB/V010

Installation: Padeswood Works

Operator: Castle Cement Ltd

Form Number: S4 / A1

Six-monthly Reporting of Emissions to Air from Emission Point A8 for the period 1st January 2013 to 31st December 2013

CHECKED & AUTHORIZATION
TRACING
OK FOR PUBLIC RELEASE
SK 28.11.14
JB 28.11.14
SK 28.11.14
JB 28.11.14

RECEIVED
27 JAN 2014

Substance / Parameter	Emission Limit Level / Unit	Result ⁽¹⁾		Test Method ²	Sample Date & Times ⁽³⁾	Accreditation/ Certification ⁽⁴⁾	Uncertainty ⁽⁵⁾
		First 6 Months	Second 6 Months				
Hydrogen Fluoride	1mg/m ³ over minimum 1 hour period / mg/Nm ³	<0.022	<0.021	ISO 15713	27/09/13 11:10-13:10	MCERTS	37
Cadmium & thallium and their compounds (total)	0.05mg/m ³ over minimum 30 min, max 8 hr period / mg/Nm ³	0.00037	0.00030	BS EN 14385	12/11/13 14:00-18:34	MCERTS	25
Mercury and its compounds	0.05mg/m ³ over minimum 30 min, max 8 hr period / mg/Nm ³	0.040	0.0018	BS EN 13211	25/09/13 14:55 -19:05	MCERTS	13
Sb, As, Pb, Cr, Co, Cu, Mn, Ni, and V and their compounds (total)	0.5mg/m ³ over minimum 30 min, max 8 hr period / mg/Nm ³	0.0081	0.027	BS EN 14385	12/11/13 14:00-18:34	MCERTS	10
Dioxins / Furans (I-TEQ) ⁶	0.1ng/m ³ over minimum 6hr, max 8 hr period / ng/Nm ³	0.015 to 0.015	0.026 to 0.026	BS EN 1948	29/10/13 09:00-15:15	MCERTS	12
Dioxins / Furans (WHO - TEQ Humans/ Mammals) ⁶	No Limit / ng/Nm ³	0.013 to 0.014	0.025 to 0.025	BS EN 1948	29/10/13 09:00-15:15	MCERTS	12
Dioxins / Furans (WHO - TEQ Fish) ⁶	No Limit / ng/Nm ³	0.015 to 0.016	0.028 to 0.028	BS EN 1948	29/10/13 09:00-15:15	MCERTS	12
Dioxins / Furans (WHO - TEQ Birds) ⁶	No Limit / ng/Nm ³	0.029 to 0.030	0.049 to 0.049	BS EN 1948	29/10/13 09:00-15:15	MCERTS	12
Dioxin - like PCBs (WHO - TEQ Humans/ Mammals) ⁶	No Limit / ng/Nm ³	0.0011 to 0.0011	0.0032 to 0.0032	BS EN 1948	29/10/13 09:00-15:15	MCERTS	18
Dioxin - like PCBs (WHO - TEQ Fish) ⁶	No Limit / ng/Nm ³	0.00006 to 0.00006	0.00016 to 0.00016	BS EN 1948	29/10/13 09:00-15:15	MCERTS	18
Dioxin - like PCBs (WHO - TEQ Birds) ⁶	No Limit / ng/Nm ³	0.0041 to 0.0041	0.0067 to 0.0067	BS EN 1948	29/10/13 09:00-15:15	MCERTS	18
Poly-cyclic aromatic hydrocarbons Total	No Limit / mg/Nm ³	0.103	0.0351	BS ISO 11338-1	12/11/13 09:52-21:24	MCERTS	49
Anthanthrene	No Limit / mg/Nm ³	<0.051094	<0.000072	BS ISO 11338-1	12/11/13 09:52-21:24	MCERTS	49
Benzo(a)anthracene	No Limit / mg/Nm ³	<0.000066	<0.000072	BS ISO 11338-1	12/11/13 09:52-21:24	MCERTS	49

Substance / Parameter	Emission Limit Level / Unit	Result ⁽¹⁾		Test Method ²	Sample Date & Times ⁽³⁾	Accreditation/ Certification ⁽⁴⁾	Uncertainty ⁽⁵⁾
		First 6 Months	Second 6 Months				
Benzo(b)fluoranthene	No Limit / mg/Nm ³	<0.000066	<0.000072	BS 1SO 11338-1	12/11/13 09:52-21:24	MCERTS	49
Benzo(k)fluoranthene	No Limit / mg/Nm ³	<0.000066	<0.000072	BS 1SO 11338-1	12/11/13 09:52-21:24	MCERTS	49
Benzo(b)naph(2,1-d)thiophene	No Limit / mg/Nm ³	<0.000066	<0.000072	BS 1SO 11338-1	12/11/13 09:52-21:24	MCERTS	49
Benzo(c)phenanthrene	No Limit / mg/Nm ³	<0.000066	<0.000072	BS 1SO 11338-1	12/11/13 09:52-21:24	MCERTS	49
Benzo(ghi)perylene	No Limit / mg/Nm ³	<0.000066	<0.000072	BS 1SO 11338-1	12/11/13 09:52-21:24	MCERTS	49
Benzo(a)pyrene	No Limit / mg/Nm ³	<0.000066	<0.000072	BS 1SO 11338-1	12/11/13 09:52-21:24	MCERTS	49
Cholanthrene	No Limit / mg/Nm ³	<0.000066	<0.000072	BS 1SO 11338-1	12/11/13 09:52-21:24	MCERTS	49
Chrysene	No Limit / mg/Nm ³	<0.000066	<0.000072	BS 1SO 11338-1	12/11/13 09:52-21:24	MCERTS	49
Cyclopenta(c,d)pyrene	No Limit / mg/Nm ³	<0.000066	<0.000072	BS 1SO 11338-1	12/11/13 09:52-21:24	MCERTS	49
Dibenzo(a,h)anthracene	No Limit / mg/Nm ³	<0.000066	<0.000072	BS 1SO 11338-1	12/11/13 09:52-21:24	MCERTS	49
Dibenzo(a,i)pyrene	No Limit / mg/Nm ³	<0.000066	<0.000072	BS 1SO 11338-1	12/11/13 09:52-21:24	MCERTS	49
Fluoranthene	No Limit / mg/Nm ³	<0.000066	<0.000072	BS 1SO 11338-1	12/11/13 09:52-21:24	MCERTS	49
Indo(1,2,3-cd)pyrene	No Limit / mg/Nm ³	<0.000066	<0.000072	BS 1SO 11338-1	12/11/13 09:52-21:24	MCERTS	49
Naphthalene	No Limit / mg/Nm ³	0.051	0.034	BS 1SO 11338-1	12/11/13 09:52-21:24	MCERTS	49
Zinc and its compounds	No Limit / mg/Nm ³	0.0089	0.040	BS EN 14385	12/11/13 14:00-18:34	None ⁷	12
Benzene	No Limit / mg/Nm ³	1.6 / 1.9	2.2 / 1.7	BS EN 13649	15/10/13 10:03-11:03 / 29/10/13 15:00-16:00	MCERTS	19
1,3-butadiene	No Limit / mg/Nm ³	0.46 / 0.69	0.25 / 1.5	BS EN 13649	15/10/13 10:03-11:03 & 13:39-10:49	MCERTS	16

- The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reported period, expressed in the same terms as the emission limit value. Where the emission limit is expressed as a range, the result given as the minimum – maximum' measured values.
- Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the agency is used then the appropriate identifier is given. In other cases the principal technique is stated e.g. gas chromatography

3. For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
4. The accreditation status of the equipment and/or the monitoring organisation, as appropriate, for the methods used for both sampling and analysis.
5. The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.
6. The result to be reported as a range based on: All congeners less than the detection limit assumed to be zero as a minimum, and all congeners less than the detection limit assumed to be at the detection limit as a maximum.
7. Due to a contaminated batch of filter papers the Zinc result is un-accredited and the result reported is a worse case result.

Signed

A black rectangular box redacting the signature of the chemist.

Date 16 Jan 2014

Victoria Smith, Works Chemist
(Authorised to sign as representative of Castle Cement Ltd)

