

Permit Reference Number: BL1096IB/V010

Operator: Castle Cement Ltd

S. Ross

Installation: Padeswood Works

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

Form Number: S4 / A1 30 June 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	<0.021		ISO 15713	02/05/14 09:10-11:10	MCERTS	38
Cadmium & thallium and their compounds (total)	0.05mg/m ³ over minimum 30 min, max 8 hr period / mg/Nm ³	0.0020		BS EN 14385	01/05/14 08:58-13:02	MCERTS	15
Mercury and its compounds	0.05mg/m ³ over minimum 30 min, max 8 hr period / mg/Nm ³	0.0099		BS EN 13211	01/05/14 15:30-19:35	MCERTS	14
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	0.036		BS EN 14385	01/05/14 08:58-13:02	MCERTS	12
Dioxins / Furans (I-TEQ) ⁶	0.1ng/m ³ over minimum 6hr, max 8 hr period / ng/Nm ³	0.0099 to 0.012		BS EN 1948	23/04/14 11:12-17:17	MCERTS	13
Dioxins / Furans (WHO - TEQ Humans/ Mammals) ⁶	No Limit / ng/Nm ³	0.0078 to 0.010		BS EN 1948	23/04/14 11:12-17:17	MCERTS	13
Dioxins / Furans (WHO - TEQ Fish) ⁶	No Limit / ng/Nm ³	0.0090 to 0.012		BS EN 1948	23/04/14 11:12-17:17	MCERTS	13
Dioxins / Furans (WHO - TEQ Birds) ⁶	No Limit / ng/Nm ³	0.020 to 0.023		BS EN 1948	23/04/14 11:12-17:17	MCERTS	13
Dioxin - like PCBs (WHO - TEQ Humans/ Mammals) ⁶	No Limit / ng/Nm ³	0.000058 to 0.00016		BS EN 1948	23/04/14 11:12-17:17	MCERTS	18
Dioxin - like PCBs (WHO - TEQ Fish) ⁶	No Limit / ng/Nm ³	0.0000020 to 0.0000082		BS EN 1948	23/04/14 11:12-17:17	MCERTS	18
Dioxin - like PCBs (WHO - TEQ Birds) ⁶	No Limit / ng/Nm ³	0.00087 to 0.0012		BS EN 1948	23/04/14 11:12-17:17	MCERTS	18
Poly-cyclic aromatic hydrocarbons Total	No Limit / mg/Nm ³	0.161		BS EN 14385	01/05/14 11:40-18:45	MCERTS	49
Anthanthrene	No Limit / mg/Nm ³	<0.000075		BS EN 14385	01/05/14 11:40-18:45	MCERTS	49
Benzo(a)anthracene	No Limit / mg/Nm ³	<0.000075		BS EN 14385	01/05/14 11:40-18:45	MCERTS	49

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		First 6 Months	Second 6 Months				
Benzo(b)fluoranthene	No Limit / mg/Nm ³	<0.000075		BS ISO 11338-1	01/05/14 11:40-18:45	MCERTS	49
Benzo(k)fluoranthene	No Limit / mg/Nm ³	<0.000075		BS ISO 11338-1	01/05/14 11:40-18:45	MCERTS	49
Benzo(b)naph(2,1-d)thiopene	No Limit / mg/Nm ³	<0.000075		BS ISO 11338-1	01/05/14 11:40-18:45	MCERTS	49
Benzo(c)phenanthrene	No Limit / mg/Nm ³	<0.000075		BS ISO 11338-1	01/05/14 11:40-18:45	MCERTS	49
Benzo(ghi)perylene	No Limit / mg/Nm ³	<0.000075		BS ISO 11338-1	01/05/14 11:40-18:45	MCERTS	49
Benzo(a)pyrene	No Limit / mg/Nm ³	<0.000075		BS ISO 11338-1	01/05/14 11:40-18:45	MCERTS	49
Cholanthrene	No Limit / mg/Nm ³	<0.000075		BS ISO 11338-1	01/05/14 11:40-18:45	MCERTS	49
Chrysene	No Limit / mg/Nm ³	<0.000075		BS ISO 11338-1	01/05/14 11:40-18:45	MCERTS	49
Cyclopenta(c,d)pyrene	No Limit / mg/Nm ³	<0.000075		BS ISO 11338-1	01/05/14 11:40-18:45	MCERTS	49
Dibenzo(a,h)anthracene	No Limit / mg/Nm ³	<0.000075		BS ISO 11338-1	01/05/14 11:40-18:45	MCERTS	49
Dibenzo(a,i)pyrene	No Limit / mg/Nm ³	<0.000075		BS ISO 11338-1	01/05/14 11:40-18:45	MCERTS	49
Fluoranthene	No Limit / mg/Nm ³	<0.000075		BS ISO 11338-1	01/05/14 11:40-18:45	MCERTS	49
Indo(1,2,3-cd)pyrene	No Limit / mg/Nm ³	<0.000075		BS ISO 11338-1	01/05/14 11:40-18:45	MCERTS	49
Naphthalene	No Limit / mg/Nm ³	0.16		BS ISO 11338-1	01/05/14 11:40-18:45	MCERTS	49
Zinc and its compounds	No Limit / mg/Nm ³	0.014		BS EN 14385	01/05/14 08:58-13:02	MCERTS	12
Benzene	No Limit / mg/Nm ³	1.5 / 1.6		BS EN 13649	23/04/14 13:40-14:40 / 15:00-16:00	MCERTS	19
1,3-butadiene	No Limit / mg/Nm ³	<0.24 / <0.24		BS EN 13649	23/04/14 13:40-13:50 / 13:55-14:05	MCERTS	16

1. 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.
2. 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



Date 17th July 2014

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

