Wednesday, 25 August 2021

Boral Cement Limited
ABN 62 008 528 523
Level 18, 15 Blue Street
North Sydney, NSW 2060

PO Box 1228
North Sydney, NSW 2059

T: +61 (02) 9220 6300
F: +61 (02) 9233 6605

boral.com.au

Sally Munk

Principal Planning Officer - Industry Assessments

Planning Services Division - NSW Department of Planning and Environment

320 Pitt Street Sydney 2000

(By email to Sally.Munk@planning.nsw.gov.au)

Dear Sally

Boral Berrima Cement (DA 401-11-2002-i) – Request to increase Feed Rate of SWDF – Request for Additional Information

I refer to your letter dated 20 August 2021 and a request from the EPA for further information before it is able to provide it's advice on our request to increase the feed rate of solid waste derived fuel (SWDF) from 40 % to 50% in Kiln 6.

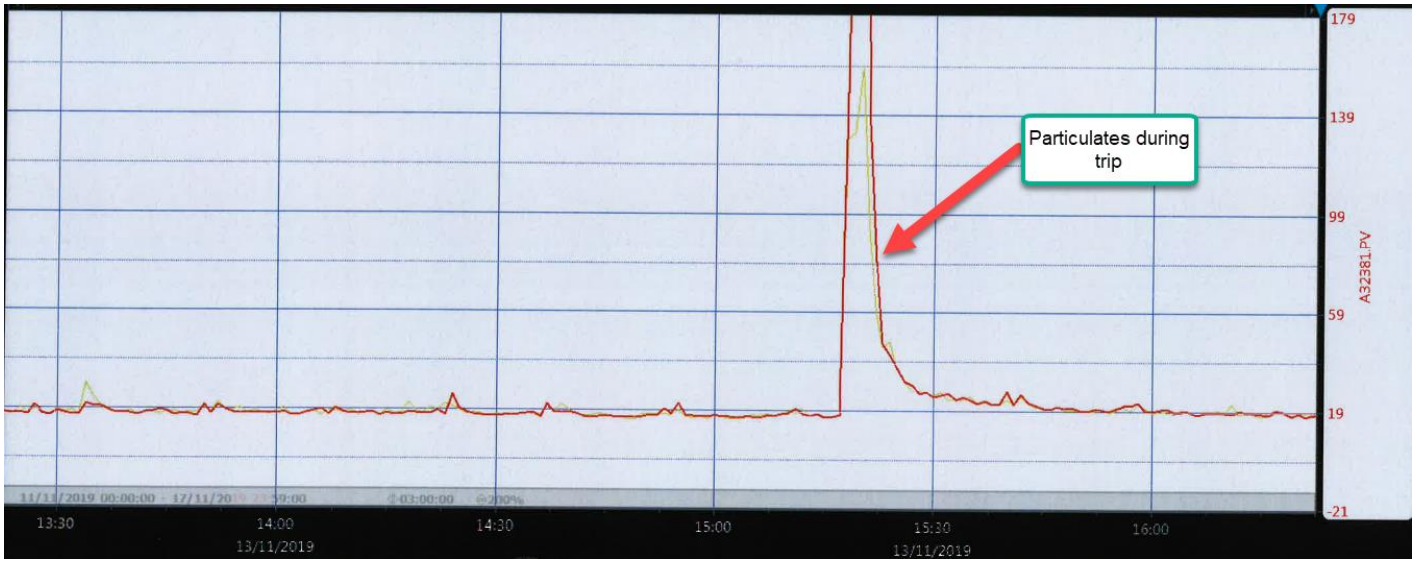
It appears the EPA have concerns about possible trends in the use of SWDF. Boral Cement has reviewed the EPA's letter and provides the following information to assist in their review.

Cadmium and Thallium

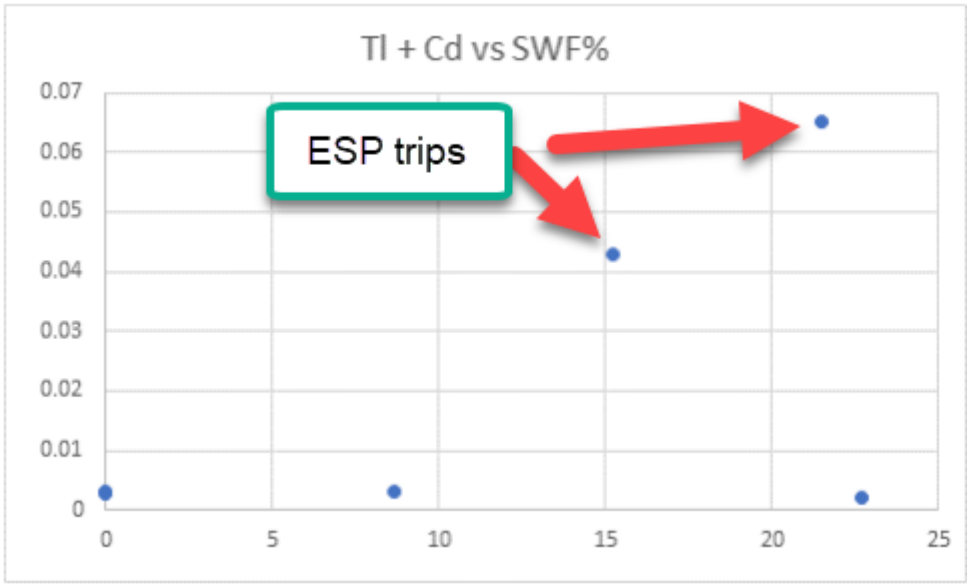
The EPA has requested particulate monitoring data at the time of the stack test undertaken on 13 November 2019 between the hours of 1:50pm-3:55pm as the emission concentration was at 80% of emission limit on only 15% SWDF and what fuel (WW or RDF) was in use at the time.

On review of the monitoring at this time, as what occurred in April 2021, there was an ESP trip during the test period. This occurred around 3:20pm for a period of 5 minutes. As can be seen from the CEMs data the particulate concentration stabilised a little quicker than the 7 April 2021 trip.

Both of these tests are not reflective of normal operations and do not reflect a trend in Cadmium + Thallium concentrations.

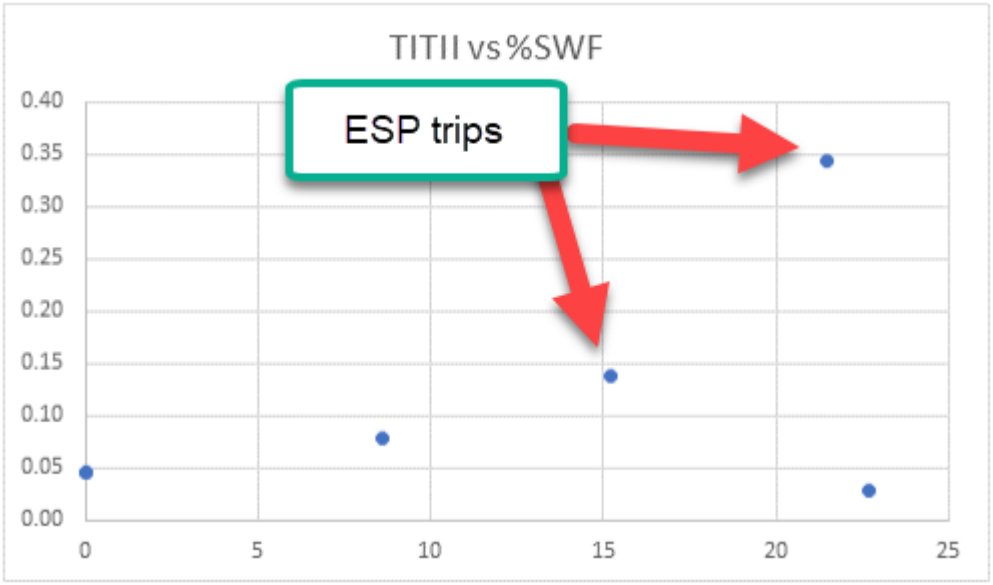

Particulates during trip
179
139
99
59
19
-21
A32381.PV
13:30
14:00
13/11/2019
14:30
15:00
15:30
13/11/2019
16:00


ESP trip duration
455.8
335.8
215.8
95.8
-24.2
-144.2
A32380.PV
13:30
14:00
14:30
15:00
15:30
16:00


Tl + Cd vs SWF%
ESP trips
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0
5
10
15
20
25

Type I and Type II metals

The total metal concentrations should be <0.34 mg/m3. This is below the licence limit and appears to be an error in the summary table by Ektimo. The elevated Manganese at 0.26mg/m3 is reflective of the ESP trip.



Dioxins

We are concerned with the comment and the EPA coming to a conclusion about dioxins stating that *'7 October 2020 was high compared to 15 June 2020, indicating SWDF was being processed at the time of monitoring.'* Firstly, the result is not high, it is 50X below the licence limit and is typical of operations when running on either coal only or a percentage of SWDFs. Both of these tests were with coal only. It appears more likely that the 15 June 2020 is abnormally low, not that 7 October 2020 is high.

Stack Reports and SWDF Use

Please see the updated table to reflect the % of SWDF in use at the time of testing of (dioxins and metals).

Report no			R007956-1	R008378	R008764	R008994	R009302-1	R010398
Date tested			31/7 - 1/8/2019	12,13&14/11/19	18-19/02/20	7-8/4/20	22-23/6/20 25/9/20	9-10/2/21 7/4/21
Date final report received			17/08/2019	8/01/2020	20/04/2020	15/06/2020	7/10/2020	11/05/2021
Parameter	Unit	Limits						
Mercury	mg/m3	0.05	0.0088	0.0091	0.0075	0.0072	0.0037	0.008
Type 1 and type 2 substances	mg/m3	0.5	≤0.079	≤0.14	<0.03	≤0.046	≤0.046	≤0.34
Solid particles	mg/m3	50	47	28	31	33	27	20
Nitrogen oxides	mg/m3	1250	940	750	1000	1100	930	980
Cadmium and Thallium	mg/m3	0.05	≤0.0034	≤0.043	≤0.0024	≤0.0037	0.0028	≤0.07
Chlorine	mg/m3	50	<0.02	0.012	0.015	<0.02	<0.01	0.023
Dioxind and Furans (I-TEQ middle bound)	ng/m3	0.1	0.0021	0.0017	0.0027	0.00064	0.0018	0.0018
Hydrogen chloride	mg/m3	10	0.057	0.19	0.14	0.4	0.22	0.087
Hydrogen fluoride	mg/m3	1	≤0.47	0.18	≤0.041	<0.03	≤0.03	≤0.084
Sulfur dioxide	mg/m3	50	0.6	0.13	0.13	0.86	0.037	0.054
Sulfuric acid mist and sulfur trioxide	mg/m3	50	0.096	2	≤0.023	0.043	≤0.033	0.068
Volatiles organic compounds	mg/m3	40	2.8	4	1.5	1.1	2.1	1.3
AF used	%		8.63	15.23	22.7	0	0	21.45
WW	%		5	10.66	22.7	0	0	14.32
RDF	%		3.63	4.57	0	0	0	7.13

Boral do not believe there is any correlation in increasing SWDF and trends relating to Thallium, Metals or dioxins. The elevated Thallium was the result of an ESP trip which was a processing issue. However, to avoid any concerns Boral Cement are willing to undertake a round of stack testing at a feed rate of 50% RDF to provide the EPA comfort that our licence limit emissions are achievable and there is no trends relating to SWDF usage.

If you or the EPA require any further information or clarification, we are willing to meet with the air branch to discuss. I can be contacted on 0401 893 420 or by email greg.johnson@boral.com.au.

Regards

Greg Johnson

Environmental Sustainability Manager – Boral Cement