

Our reference: LIC06/331-24:DOC12/7166:WD
Contact: William Dove (02) 4224 4100

Boral Cement Ltd
Trading as ~~Blue Circle Southern Cement Limited~~
(Attention: Aleksandra Wnorowski)
PO Box 42
WENTWORTHVILLE NSW 2145

Dear Aleks

BORAL CEMENT BERRIMA KILN OPACITY LIMITS

Please find attached a draft Notice (1503064) the Environment Protection Authority (EPA) has prepared under Section 58 of the Protection of the Environment Operations Act (1997). We are providing this notice to Boral in draft, seeking any comments you may have, prior to the notice being finalised and issued.

In summary, this notice removes the opacity limits from the Boral Environment Protection Licence (EPL) 1698, for when both standard and non-standard fuel are used. It also makes some other minor changes to the EPL and adds a new Pollution Reduction Program.

Details and the rationale for taking this approach are included in Attachment 1 to this letter, and in the background to the notice, points A-O on pages 1-2.

The following is a summary of relevant information:

- Boral provided to the EPA a copy of the Tri-Annual Environmental Audit report (14-16 November 2011) prepared by Somerset Risk Management P/L. This audit identifies that *"...the regulatory authorities have indicated since 2008 that opacity measurements are an indication of smoke rather than dust and are therefore not an accurate indicator of dust levels in the discharge stacks. The parameter should be reviewed in both the License and Kiln 6 Planning Consent. At the time of this audit, this had not been properly resolved..."*
- Opacity has traditionally been used as a simple and ready means of obtaining an indicative measure of air pollution from discharge stacks.
- Developments in monitoring technology have meant that solid particles can be monitored continuously and accurately.
- Boral operate a Continuous Emissions Monitoring System (CEMS) which directly measures emissions of solid particles
- The current opacity limit of 20% is frequently exceeded due to various short term process disturbances in the kiln including: CO trips of the Electrostatic Precipitators (ESPs); raw material blockages in the pre-heater cyclones; and during start up and shutdown of the kiln.
- While opacity is a relevant parameter for monitoring the Kilns performance from a production standpoint, the EPA considers that solid particles measured continuously are a more relevant parameter for regulating the environmental performance of Number 6 Kiln.

After an Environment Protection Licence has been reviewed under S 78 of the Protection of the Environment Operations Act (1997), the EPA can place conditions on the EPL that are inconsistent with a development consent. Notwithstanding this, consistency between different regulatory instruments is preferable and in this regard, the EPA has sought the views of the Department of Planning and

Infrastructure. The EPA is also interested in your views on this approach and would request any comments you have by 25 March 2012.

If you have any questions in the meantime, please contact the designated officer.

Yours sincerely

A handwritten signature in blue ink, appearing to be 'P. Bloem', with a large loop at the end.

24/2/12

PETER BLOEM
Manager Illawarra
Environment Protection Authority

Att:

cc: Department of Planning and Infrastructure
Major Projects Assessment
(Attention: Christine Chapman, Felicity Greenway)
GPO Box 39
SYDNEY NSW 2001

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Attachment 1

- A. Opacity has traditionally been used as a simple and ready means of obtaining an indicative measure of environmental performance from discharge stacks. Developments in monitoring technology have meant that solid particles can be monitored continuously and accurately.
- B. Environment Protection Licence 1698 requires Boral to operate a continuous emissions monitoring system (CEMS) when both standard and non-standard fuels are used in the No 6 kiln. This monitoring system directly measures emissions of solid particulates. Opacity is also measured continuously.
- C. While the measurement of opacity continuously is useful for Boral in an operational sense, it is less useful for the EPA to assess the environmental performance of the Number 6 kiln. The more important parameter in terms of assessing potential environmental impacts from the operation of the Number 6 Kiln is solid particles.
- D. The existing EPL and Planning Approval have air emission limits for opacity, 20%, (based on a 6 minute rolling average) and solid particles 95 mg/m³ (based on annual stack testing) during standard fuel use.
- E. The existing EPL and Planning Approval have alternate air emission limits if non-standard fuels are used. The opacity limit is 20% (based on a 6 minute rolling average), and a solid particle limit of 30 mg/m³ (based on a 24 hour averaging period calculated from hourly averages of CEMS data).
- F. Currently Boral is not using non-standard fuels in the Number 6 kiln.
- G. The 20% opacity limit measured on a six minute rolling average is frequently exceeded. The exceedances are largely due to various short term process disturbances in the kiln such as CO trips of the ESP and raw material feed blockages in the preheater cyclones. Exceedances of the opacity limit are not typically accompanied by exceedances of the solid particle limits.
- H. The EPA considers that opacity has limited relevance for regulating the environmental performance of the Number 6 Kiln. Opacity is a relevant parameter for monitoring the Number 6 Kiln for production reasons.
- I. The EPA considers that solid particles measured continuously are a more relevant parameter for regulating the environmental performance of the Number 6 Kiln.

