

Your reference: S02/01719  
Our reference: LIC06/331:DOC11/50845:RB  
Contact: Bob Buchanan (02) 4224 4100

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

Dear Sir

**BORAL CEMENT LTD - NEW BERRIMA CEMENT WORKS  
PROPOSED USE OF GRANULATED BLAST FURNACE SLAG**

I refer to the above application to modify the development consent (DA No 401-11-2002-i-MOD 7) to allow use of Granulated Blast Furnace Slag (GBFS) in the No 6 Kiln at the New Berrima Cement Works.

The application is to store and use approximately 3,000 tonnes of GBFS supplied from Australian Steel Mill Services Port Kembla for the purpose of process trials in the No 6 Kiln. The Environment Protection Authority (EPA) is generally supportive of the use of alternative raw materials in the cement industry where it does not cause harm to the environment or human health. The EPA notes that there are a number of environmental benefits to be gained by partial substitution of virgin natural materials such as blue shale, by up to 10 per cent of GBFS in the raw material feed. If the results of the trial are successful from the standpoint of commercial and process feasibility, Boral Cement propose to use GBFS in full production (approximately 150,000 tonnes per year). In this event the consent should require Boral Cement to consult with the Director-General of the Department of Planning and Infrastructure (DPI) and the EPA prior to incorporating the use of GBFS in full production at a nominated maximum annual volume.

To facilitate the beneficial reuse of waste materials, the EPA is able to exempt from certain regulatory requirements the use of waste as fuel, alternative raw material or its application to land. These exemptions are known as resource recovery exemptions (RRE) and are only issued where the proposed use of the waste material is beneficial and does not cause harm to the environment or human health. Following recent consultation with Boral Cement to discuss this proposal the EPA has advised Boral that the use of GBFS in the No 6 Kiln would be contingent on the issue of a specific RRE for use in a thermal process. This exemption would address quality control issues by specifying appropriate sampling and testing procedures to confirm that the GBFS meets certain chemical and other material property criteria. The exemption would also specify generator and processor responsibilities regarding accountability and transparency of test results.

Accordingly, the EPA supports the proposal to trial the use of GBFS in the No 6 Kiln at the New Berrima Cement Works conditional on the issue of a specific RRE for use of GBFS in a thermal

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process. The EPA has included comments on specific elements of this proposal as an attachment to this letter.

In relation to the Environmental Assessment undertaken by Boral Cement, the EPA concurs with the conclusion that, due to the chemical characterisation of GBFS, the proposal is unlikely to result in any increase in the level of air pollutants in stack emissions and that the existing emission limits provide a sufficiently rigorous means of minimising the impact of process emissions on local air quality. If approval is granted to the Applicant and the trial proves the benefit of GBFS as a regular feedstock the EPA will negotiate an increase in the frequency of stack tests over a defined timeframe to confirm the emissions performance when GBFS is added to the raw material mix.

Should you require any further advice on this proposal please contact Bob Buchanan on (02) 4224 41000

Yours sincerely

**TIM COONEY**  
**Acting Manager Illawarra**  
**Environment Protection Authority**

Att

cc: Boral Cement Limited  
(Attention; Alex Wnorowski)  
Greystanes House  
Clunies Ross Street  
PROSPECT NSW 2148

## ATTACHMENT

### 1. Exemption from the waste legislation

The trial of Granulated Blast Furnace Slag (GBFS) in the No 6 Kiln requires a specific resource recovery exemption (RRE) to be issued by the Environment Protection Authority (EPA) to exempt GBFS from the certain clauses of the Protection of the Environment (Waste) Regulation 2005. If the trial confirms the process feasibility for GBFS it is recommended that the consent modification cover the eventuality of full production use of GBFS.

#### **Recommended Conditions of Consent:**

- 1.1 Prior to the delivery of GBFS to the New Berrima Cement Works the Applicant must obtain a specific RRE from the EPA for use of GBFS in a thermal process.
- 1.2 If the results of the trial are such that Boral Cement intend to use GBFS as a regular feedstock to the No 6 Kiln the applicant must consult with the Director-General and the EPA prior to the use of GBFS in full production to determine the appropriate maximum usage rate per annum.

### 2. Matters to be regulated through the Environment Protection Licence

#### 2.1 Air Emissions

The proposal includes the performance of an emissions stack test during the trial period. While this is an appropriate step to determine the effect of GBFS on emission levels of parameters of interest it is expected that, should the trial prove successful, the EPA will negotiate, through a Variation of the Environment Protection Licence (EPL), an increased frequency of stack testing over a defined timeframe to satisfy any concerns about process emissions that could result from the change in the raw material feedstock to the No 6 Kiln.

#### 2.2 Dust

The EPA is satisfied that the conditions of the EPL are sufficient to regulate the impacts of dust emissions from stockpiling and handling of GBFS at New Berrima. The proponent's Dust Management Plan 2011 contain a set of priorities to progressively reduce emissions of fugitive dust from truck movements on sealed and unsealed surfaces, stockpiles and material handling activities at the premises.

#### 2.3 Noise

The EPA notes that it is not expected that the proposal will generate any increase in truck movements between Port Kembla and New Berrima as trucks will be back loaded with GBFS following clinker haulage from New Berrima.

#### 2.4 Alternative Raw Materials

If DPI approves the Consent Modification Application and Boral Cement deem the trial to demonstrate commercial and process feasibility for continued use of GBFS in the No 6 Kiln, the EPA will add GBFS to the list of materials permitted as an alternative raw material at a specified maximum usage rate to be determined following consultation between the applicant, the EPA and DPI (Condition O9.1 on the applicant's EPL).