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Boral Cement Limited
Clunies Ross Street
Prospect NSW 2148
PO Box 42 Wentworthville
NSW 2145

T: +61 (02) 9033 4000
F: +61 (02) 9033 4055

www.boral.com.au

Christine Chapman
Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

**RE: BERRIMA CEMENT WORKS
KILN 6 DEVELOPMENT CONSENT MODIFICATION 7**

Dear Christine,

Boral submitted an application to the Department of Planning & Infrastructure (DP&I) under Section 75W of the *Environmental Planning and Assessment Act 1979* (NSW) (EP&A Act), seeking modification of the current development consent for Kiln 6.

This modification (MOD 7) seeks approval to trial Granulated Blast Furnace Slag (GBFS) supplied from Australian Steel Mill Services, Port Kembla, in Berrima Works' Kiln 6 as an alternate raw material in order to optimise the clinker manufacture process. If the trial is successful, the anticipated usage of GBFS will be in the range of 150,000 tonnes per annum.

Negligible environmental impacts are anticipated to arise from the proposed process modification:

- This material has already undergone processing through heat treatment in the blast furnace and as such most of the volatile metals and organics have been removed from the slag. Any contribution to stack emissions will be negligible.
- Non-volatile trace metals will drop out to become part of the clinker matrix where they will be immobilised. The added heavy metal quantities are negligible in comparison with the bulk of the cement material. GBFS is a common additive in cement and concrete mixes worldwide.
- Use of this by-product will reduce the consumption of non-renewable raw materials.
- GBFS use in the kiln is also a common industry practice and air quality impacts are not an issue.
- Since slag contains calcined lime, total CO₂ emissions from the kiln will decrease.



The application and the supporting Environmental Assessment were subject to a public display process in November 2011. Several submissions were received by the Department of Planning and Infrastructure in response to the application.

The table attached to this letter summarises our responses to all submissions.

If you require any additional information please do not hesitate to contact me by telephone on 02 9033 4208, mobile 0401 894 757 or email aleksandra.wnorowski@boral.com.au.

Sincerely

A handwritten signature in black ink, appearing to be "Aleksandra Wnorowski", written in a cursive style.

Aleksandra Wnorowski
Environment Manager - Boral Cement



Submission Author	Summary of Submission	Boral's Response
NSW Department of Trade and Investment Division of Resources and Energy	No issues with the proposed modification or recommendations for conditions of approval	Boral acknowledges the Department's submission of no objection to the modification.
Roads and Maritime Services, Road Safety and Traffic Management	No objection to the proposed modification due to its negligible impact on road traffic (return trips from the Port used to bring the raw material into the Works).	Boral acknowledges the Department's submission of no objection to the modification.
EPA Illawarra Branch	Submission in support due to: - Partial substitution of virgin materials - Beneficial reuse of waste materials Negligible environmental impacts of the proposed modification in terms of dust, noise and traffic as no changes are proposed to the overall volumes of stockpiled materials or additional equipment.	Boral acknowledges that EPA's support is subject to conditions of: - issue by EPA of a special resource recovery exemption for reuse of GBFS in a kiln - completion of suitable stack testing
Robert Parker Resident of Berrima	1. Submission in support due to: - Reduction of CO2 emissions from the kiln	1. Boral acknowledges the support of the local resident due to the environmental benefits of the project. 2. Boral advises that rail transport of clinker to Port Kembla and GBFS back to the Works is currently not technically or



	- Reduction of CO2 emissions from road transport - Reduction of fuel requirements due to the fact that GBFS is already calcined. 2. Suggestion of possible rail use for two-way transport to Port Kembla. 3. Suggestion that Cement Works undertake a greenhouse gas emission study. 4. Concerns over possible "back loading of GBFS from the Illawarra region as a way to offset the costs of additional coal exported by Boral from the Medway Colliery."	commercially feasible. The current truck haulage system will be used and the proposed modification will not increase traffic impacts above the current levels. 3. Boral Cement has been conducting detailed accounting of greenhouse gas emissions since 2007, as summarised in an annual NGRS reports. Any changes to process chemistry, such as increased use of non-CO2 generating raw materials, as well as any reduction in truck fuel consumption, will be shown immediately in the carbon accounting data. 4. This modification relates to raw material use at Berrima Works, not coal sales, and has no effect on that other potential activity. The back loading is on the return trip from clinker deliveries to Port Kembla, not coal.
Lynne Morrison on behalf of Residents of Medway	Submission objecting to the proposed modification due to: 1 Increased heavy traffic on Taylor Ave and Medway Rd., including road safety concerns for Medway Village residents and dust and noise at Loch Catherine. 2 Lack of due process, causing Boral to lodge three separate applications to the DP&I. 3 Lack of consultation with the local community.	1. The average truck traffic between Port Kembla and New Berrima (Taylor Ave) will not change as the clinker truck back trips from the Port will be used for haulage. See also submission by Road and Maritime Services who do not have objection to the proposal. Medway Road will be used only within a short section between the Old Hume Hwy roundabout and the north-bound ramp onto the motorway (as it is today and at the current traffic levels). The residents of Medway Village will be not affected by this modification. This modification does not relate to the Loch Catherine area and will not affect dust and noise levels in that location.



	The submission's comments on two other planning applications do not relate to Modification 7 for slag use. These are being responded to by Boral in another response to submissions report. 2. Berrima Works has two applications with the DP&I. The third application mentioned by the respondent relates to a separate Boral site and a separate application process. The modification application for coal storage was lodged by Berrima Works in April 2011 and is still being considered by the DP&I. Boral has no influence over the pace of processing by the regulatory authorities. When an urgent market opportunity arose to utilise iron slag in a beneficial way, a second modification application was required and subsequently lodged. In terms of planning process, the two modifications are being dealt with separately. In Boral's opinion, both applications present significant environmental and/or community benefits. 3. Boral acknowledges and accepts the amount of consultation with the local community regarding this modification. However, the urgency of the opportunity to secure use of GBFS did not fit the timing of the scheduled Community Liaison Committee meetings where this would normally be discussed. Furthermore, no air emission issues are likely to arise from this project, and road traffic will remain at the current levels. Therefore, in agreement with the DP&I, an application was urgently prepared and lodged to allow for the lengthy processing time. The neighbouring community at New Berrima was immediately notified by a letterbox drop. The modification application was placed on the DP&I and Cement Works website and was also available at the Wingecarribee Council for public comment.
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G.J.Byrne Old Hume Hwy Berrima	Submission objecting to the proposed modification. The respondent is an owner and occupier of a neighbouring rural property, with a boundary close to the current stockpile area. The respondent states that: 1 The current stockpile area is detrimental to their property as it produces dust and noise, light at night from operating vehicles and stormwater runoff in heavy rain onto his paddocks. 2 The proposed modification represents a significant expansion of the operations. 3 The prime agricultural land features of the property are being progressively degraded by the expanding stockpile operations at the boundary. 4 The respondent formulates an objection to a separate Modification No.6, currently being considered by the DP&I.	1. The dust and noise impacts of the existing site and proposed modification are managed through the implementation of management plans. The EPA is supportive of the actions taken (see EPA submission above). Boral is appreciative of the feedback in this submission regarding site lights and stockpiles, however, we were not aware about any potential impacts in relation to lights or stormwater at this property before. Having now been alerted to this issue, Boral is investigating the stormwater flows and will take an appropriate action if any unexpected runoff is found. Generally, the stormwater on site is carefully collected in a series of dams and reused. Only a controlled, monitored release is allowed from the Lake Quality at times. Now that Boral is aware of the feedback in relation to site lighting, the opportunity for improved boundary screening with the Byrne's property will be considered in the current review of site. It is noted that the proposed modification will not affect the status of site lighting. We've contacted Mr Byrne do discuss the potential stormwater and landscaping improvements and will follow it up on his property at a mutually convenient date. 2. The proposed modification will bring a replacement of a part of virgin raw materials therefore is not an expansion of operations. 3. This modification does not stipulate the expansion of stockpiling – just a replacement. The total of 150,000 tonnes per annum does not mean that all that volume will be on site at one time. To the contrary, the Lean Management practices adopted by Boral recommend stock levels to be kept at a commercially safe
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		minimum. The improved screening at the boundary will be considered (see Point 1). 4. Objections to MOD 6 are being addressed in the Boral response that is part of a statutory process in the assessment of MOD 6 Application.
Wingecarribee Shire Council	No objection to the slag trial. 1. The Council supports EPA comments presented in their submission. 2. Stockpiling should have appropriate bunding and dust suppression. 3. Concerns over transport impacts in the full-scale operation.	1. Stack testing will be conducted to confirm the benign nature of this by-product in thermal treatment. 2. The current overall size and location of stockpiles will not change. The slag will replace a part of the volume of other raw materials stockpiled on site. 3. The average truck traffic between Port Kembla and New Berrima will not change as the clinker truck back trips from the Port will be used for haulage. See also submission by Road and Maritime Services who do not have objection to the proposal.