



Our reference: EF13/2672:DOC13/79823-03:PW
Contact: Andrew Couldridge (02) 4224 4100

Department of Planning
(Attention: Brendon Liew)
GPO Box 39
SYDNEY NSW 2001

Dear Sir

BORAL BRINGELLY BRICKWORKS AND QUARRY EXPANSION (SSD12 5684)

I am writing to provide comment on the exhibited Project Application and associated Environmental Impact Statement (EIS) for the above proposal which was received by the Environment Protection Authority (EPA) on 6 November 2013.

The EPA has undertaken a review of the EIS and has identified a number of key environmental issues that require either clarification or additional information. These issues relate to the following and are detailed in **Attachment A:**

- EPA Director General Requirements
- Air Quality
- Noise Impact
- On-site Sewage Management and Industrial Wastewater Management; and
- Stormwater Management System

The EPA considers the above issues to be important and should be resolved as part of the development assessment process. In this regard, the EPA will be able to provide further comments and recommended conditions of approval once additional information has been submitted that address the above issues.

The EPA would be also able to meet with the Department of Planning and Infrastructure and the proponent at a mutually convenient time to discuss any of the above issues. If you have any questions, or wish to discuss this matter further please contact Andrew Couldridge on (02) 4224 4100.

Yours sincerely

A handwritten signature in black ink, appearing to be 'PB' with a stylized flourish.

24/12/13

PETER BLOEM
Manager Illawarra
Environment Protection and Regulation

Att A: Comments and Additional Information Required

ATTACHMENT A

1. EPA Director General Requirements

The Environment Protection Authority (EPA) provided its key requirements for the preparation of an Environmental Impact Statement (EIS) for this project in a letter to the Department of Planning and Infrastructure (DP&I) dated 9 January 2013. The EIS does not appear to have referenced this letter nor fully addressed its requirements. Some but not all of the following comments relate to the EPA's key requirements. The EPA recommends that the requirements of this letter should be fully addressed. A further copy of this letter can be provided on request.

2. Air Quality

The EPA has undertaken a review of the Air Impact Assessment (AIA) accompanying EIS and has identified a number of key issues where either clarification and/or additional information are required. This includes but is not necessarily limited to the following:

- a) The EPA Director General Requirements (DGR) dated 9 January 2013 state that *"with a development proposal involving an increase in production, there is a potential for an increase of emission of pollutants from the premises. In this regard, Section 33 of the Protection of the Environment Operations (Clean Air) Regulation 2010 states that emissions must meet Group 6 requirements.* The EPA requests additional information that includes a detailed comparison of all existing air emission discharges from the premises against Group 6 requirements. If these requirements cannot be achieved details should also be documented of any reasonable and feasible mitigation measures that can be implemented to ensure these requirements can be met.
- b) It is noted in the AIA that emission rates have been estimated based on an average from two separate stack tests. In some instances it appears that the emission rate adopted for the purposes of conducting dispersion modelling is lower (with an allowance for an increase in production) than the values currently measured. Air Quality Assessments should be based on conservative assumptions so as not to under predict potential air quality impacts. Hence it is requested that additional information be provided to clarify:
 - i. Changes that are proposed to the operation of the kiln and dryer facilities to accommodate the increase in production and how this may relate to air emissions from the site. In particular information is required on any changes to pollutant load to air from the existing operation compared against the proposed increase in production.
 - ii. The applicability of the adopted emission rates to compounds with assessment criteria covering a number of different averaging periods. It is unclear what averaging period the stack data has been collected and hence it is unclear if any allowances in adopted emission rates for varying averaging periods has been accounted for.
 - iii. Any implications on the outcomes and conclusions of the AIA noting any additional information or changes to the assumptions presented within the AIA as a result of the above mentioned items.
- c) It is noted in the AIA that the assessment of particulate matter impacts has been based on the provision of key control mechanisms (that is, wind breaks and wet suppression), with an emphasis on passive controls such as stockpiling, vegetation buffers and rehabilitation, however no specific details of the control mechanisms is provided. Detailed information on the extent of any proposed mitigation measures including the methods proposed to monitor and regulate the effectiveness of the controls with a preference on proactive rather than reactive approaches is requested. In addition, the EPA DGR dated 9 January 2013 also stated that with extraction and production activities increasing the EPA recommended *"that a site specific Best Management Practice determination should be prepared as part of the AIA. This would assist in informing the adequacy and performance of existing dust mitigation measures. It would also assist in identifying the most practicable means to reduce any particle emissions associated with the existing and expanded operations and identify any additional reasonable and feasible dust mitigation measures.* This Best Management Practice determination would also guide monitoring approaches to inform reactive and proactive dust management at the site.

3. Noise Impact

The EPA has undertaken a review of the EIS and accompanying Noise Impact Assessment (NIA) and has identified a number of key issues where either clarification and/or additional information are required. This includes but is not necessarily limited to the following:

- a) The NIA states that background noise was monitored at three locations to the east of the premises, in the vicinity of The Northern Road. However, there is no justification on whether these locations represent the most or potentially most affected noise sensitive location/s. In particular, these locations may be impacted by road traffic noise from The Northern Road. There are also a number of residences surrounding the operation which could potentially be impacted by noise from the operation. In this regard, the DP&I should seek justification from the proponent on whether the background monitoring sites satisfy the requirements of NSW Industrial Noise Policy (INP) and represent the most or potentially most affected noise sensitive location/s.
- b) The proponent has predicted noise levels from the project will exceed the project specific noise levels (PSNL), however has not considered the acceptability of the impacts in accordance with Chapters 8 and 9 of the INP. In particular, the EIS has noted that under SSW wind conditions, exceedances of up to three decibels are predicted at residences to the east and north of the project site; however these are recognised as only marginal and will be left to a management plan process that will be validated post approval. In the *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Limited* [2013] NSWLEC 48, one of the issues which resulted in the appeal being upheld was that impacts above the PSNL were predicted, but that in giving approval to the project the DP&I did not consider the acceptability of the impacts in accordance with Chapters 8 and 9 of the INP. In particular, if reasonable and feasible noise mitigation cannot be achieved then a commitment for a negotiated agreement should be sought with those affected parties and documented in the EIS.
- c) The DP&I DGR required the EIS to include "*reasonable and feasible mitigation measures, including evidence that there are no such measures available other than those proposed*". In this regard an assessment of the range of reasonable and feasible mitigation measures that are available should be documented in the EIS including justification for those proposed.
- d) The EPA also considers it unlikely that the bund walls will be an effective noise mitigation measure due to their distance from the noise sources at the premises. In particular, the proposed noise bund on the northern boundary is approximately 200 metres from the elevated brick making facility. The EPA recommends that further information is required that can demonstrate the bund walls can be effective or an alternative noise mitigation measure should be identified.

In addition with the proposal involving the intensification of handling activities/ stockpiling in the south east of the site, it is important that the assessment has included all activities associated with any intensification of activities in this area. It is also noted that a proposed noise mitigation measure will be the treatment and mitigation of a front end loader. In this regard, information should be sought from the proponent on expected timing when these noise mitigation measures including a commitment being sought that these will be implemented before any increase in operations is undertaken at the site. In addition, the EPA also recommends that a commitment also be sought that any stockpiling and associated handling activities be restricted to daylight hours.

4. On-site Sewage Management and Industrial Wastewater Management

The EIS states that a small disused sewage treatment plant (STP) and irrigation area is located on the site and will be augmented to cater for a doubling of the workforce. However, no detail has been provided in the EIS on this new or upgraded sewage system. As stated in the EPA DGR dated 9 January 2013, it was recommended that as an outcome of the project polluted water including sewage should be captured on the

site and directed to reticulated sewer where available or else collected, treated and beneficially reused, where this is safe and practicable to do so. In addition, it should also avoid pollution of waters. In this regard, the EPA recommends that DP&I should seek the information from the proponent; including but not necessarily limited to the following:

- Justification for a new or amplified STP and irrigation area including whether sewage can be directed to the reticulated sewage system
- Details on the location of the new or amplified STP and irrigation area
- Details on the new or amplified STP and irrigation area including demonstration that the above outcomes can be achieved
- Details of the treatment level, irrigation area characteristics and wet weather storage capacity for a new or amplified STP developed in accordance with the *Environmental Guidelines Use of Effluent by Irrigation* (DEC 2004). (Note: It appears stormwater drainage is currently directed to the effluent irrigation area and should be redirected to a sediment dam to reduce the hydraulic load on the irrigation area); and
- Expected timing for designing, constructing and commissioning of the new or amplified STP and irrigation area.

The EIS also states that industrial wastewater is brought to the site for use in the brick making process. However no details have been provided on how the proposed increase in production will affect usage of wastewater and whether there are any environment impacts from its associated use, for example, potential air quality impacts from the drying process. In this regard, the EPA recommends that DP&I should also seek the following additional information from the proponent; this should include but not necessarily be limited to:

- The source and quality of the wastewater and compliance with relevant legislation
- Any increase in the importation of industrial wastewater due to the proposal
- Demonstration that the EPA DGR dated 9 January 2013 can be achieved
- Whether any of the wastewater is discharged to stormwater or sewer and any resultant impacts on discharged water quality; and
- An assessment of air quality impacts from the drying process from the use of wastewater.

5. Stormwater Management System

The EIS states that the quarry will be expanded to a total of 30.65 hectares and also deepened to 30 metres. The management of stormwater from the existing and expanded area will be treated through the existing stormwater management system that involves two separate collection and discharge paths. The larger system collects stormwater in a pit sump in the disturbed areas of the quarry which is pumped to Dam 4 and 5 for flocculation and settling. The water is then pumped to Dam 6 before which is an online dam that overflows to Thompsons Creek.

The other system captures runoff from the temporary raw material and unusable material stockpiles and is directed to Dams 1 and 2 at the northern end of the site. The water is treated for removal of coarse and fine solids respectively through settlement and flocculation. The overflow from Dam 1 discharges to Bardell Gully which also flows into Thompsons Creek.

The EPA licences these discharges with the Environment Protection Licence (EPL) containing limits on conductivity, oil and grease, Ph, Total Suspended Solids and Turbidity. The EPA advises that there has been a history of water quality issues from the site, in particular exceedances of the conductivity limit in relation to discharges from Dam 6 to Thompsons Creek. This issue is currently the subject of a Pollution Reduction Program that will involve the development of an improved water monitoring program for the site that is expected to be completed by 30 March 2014.

The EIS states that the project will not have a significant impact on the existing condition of nearby watercourses including Thompsons Creek, Bardwell Gully and South Creek due to their degraded environmental conditions. In addition, an EPL is the place to regulate these discharges which will be amended to accommodate the project. The EPA considers that it is not acceptable for developments to

implement a lesser level of environmental performance simply because water quality in these catchments is currently degraded. In this regard, opportunities should be explored to ensure any water discharges from the site are contributing to restoring the community's environmental values for these waterways.

In addition when exercising its licensing functions, the EPA is required to consider any of the matters in Section 45 of the Protection of the Environment Operations (POEO) Act 1997. These include but are not necessarily limited to:

- the pollution that will be caused and its impact on the environment
- practical measures that can be taken to prevent, control, abate or mitigate the pollution and protect the environment from harm
- the environmental values of water affected by the proposed discharge; and
- the practical measures that can be taken to restore or maintain those values.

In this regard, the EPA has identified several issues that includes but is not necessarily limited to the following:

- a summary of monitoring results to demonstrate performance of existing stormwater controls
- characterisation of any existing discharges to waters
- an assessment of the likely impacts of discharges on receiving waters, in particular their environmental value
- the practical measures that can be implemented to mitigate any impact in order to restore or maintain those values
- water management at the site to ensure dams are available for proceeding rainfall events including current measures for the removal and handling of collected sediment
- opportunities for redirecting and consolidating flows and treatment to improve water quality discharges from the site
- clarifying the current use of chemical flocculation to ensure its efficient use in order to prevent water pollution from the site; and
- opportunities for reusing treated stormwater in brick production where this is safe and practicable to do so.

The EPA would like to meet with DP&I and the proponent to discuss the above issues further and to specify technical detail regarding the existing stormwater management system and explore opportunities for its improvement.

