



Decision Document

Environmental Protection Act 1986, Part V

Licensee: Boral Bricks Western Australia Pty Ltd

Licence: L4511/1967/13

Registered office: Level 3, 40 Mount Street
NORTH SYDNEY NSW 2060

ACN: 008 674 244

Premises address: Part Lot 103 on Plan 54208, Part Lot 87 on Plan 5036, Part Lot 2 on Plan 15380 and Part Lot 5601 on Plan 190183 Great Northern Highway; and Lot 80 on Plan 5036, MIDDLE SWAN WA 6056.
Part Lot 1 on Plan 6149, Lots 200 to 205, and Lots 220 and 221 on Plan 10145 Winston Crescent; Lots 214 to 219 on Plan 10145 Bernley Drive; Lot 159 on Plan 9113, Lots 162 to 166 on Plan 9113, and Lots 190 to 198 on Plan 9113 Brentford Avenue; Lots 167 to 169 on Plan 9113 Surrey Court; Lot 158 on Plan 9113, Lots 152 to 157 on Plan 9113, and Lots 160 to 162 on Plan 9113 Somerset Street; Lots 149 to 151 on Plan 9113 York Street; and Lots 142 to 148 on Plan 9113 Cranwood Crescent, VIVEASH 6056 as depicted in Schedule 1

Issue date: Thursday 14 December 2015

Commencement date: Thursday, 31 December 2015

Expiry date: Wednesday, 30 December 2020

Decision

Based on the assessment detailed in this document the Department of Environment Regulation (the DER) has decided to issue an amended licence. DER considers that in reaching this decision, it has taken into account all relevant considerations.

Decision Document prepared by: Peter Johns
Licensing Officer

Decision Document authorised by: Lauren Trott
Delegated Officer



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1 Purpose of this Document

This decision document explains how DER has assessed and determined the application and provides a record of DER's decision-making process and how relevant factors have been taken into account. Stakeholders should note that this document is limited to DER's assessment and decision making under Part V of the *Environmental Protection Act 1986*. Other approvals may be required for the proposal, and it is the proponent's responsibility to ensure they have all relevant approvals for their Premises.



2 Administrative summary

Administrative details		
Application type	Works Approval <input type="checkbox"/> New Licence <input type="checkbox"/> Licence amendment <input checked="" type="checkbox"/> Works Approval amendment <input type="checkbox"/>	
Activities that cause the premises to become prescribed premises	Category number(s)	Assessed design capacity
	41	1 000 000 tonnes per year
	77	200 000 tonnes per year
Application verified	Date: N/A	
Application fee paid	Date: N/A	
Works Approval has been complied with	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
Compliance Certificate received	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
Commercial-in-confidence claim	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Commercial-in-confidence claim outcome		
Is the proposal a Major Resource Project?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Referral decision No: Managed under Part V <input checked="" type="checkbox"/> Assessed under Part IV <input checked="" type="checkbox"/>
Is the proposal subject to Ministerial Conditions?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Ministerial statement No: 322 EPA Report No: 691
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i>)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Department of Water consulted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises within an Environmental Protection Policy (EPP) Area Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Is the Premises subject to any EPP requirements? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		



3 Executive summary of proposal and assessment

The premises is approximately 2.5km from the Midland town centre. A mixture of commercial and residential premises is located nearby and the Swan River runs along the western boundary of the premises. The nearest residences are 340 metres south-east of the kiln 11 stack and 450 metres south-west of the kiln 7 and 8 stack.

The licensed premises includes:

- Undercover and open raw material stockpile areas;
- Primary and secondary crusher and screens;
- Seven natural gas-fired tunnel kilns with associated dryers and plant;
- Kiln exhaust gas abatement plant (dry injection fabric filters);
- Masonry production plant;
- Vehicle, mechanical and electrical workshops to support operations; and
- Fired product storage areas.

Manufacture of bricks involves four main stages;

Clay preparation involves grinding and crushing of clays and shale, blending of different clay types and addition of water. Colourants or materials to improve the aesthetic and mechanical properties of the finished product may also be added.

Product shaping covers shaping the raw material mix into shapes using moulds or by extrusion. During or after shaping, additives may be applied to the surface of the raw clay shapes to achieve desired colour or texture effects.

Drying of the product is undertaken by passing them through a dryer, heated by warm air from the cooling zone of the kiln. Exhaust gases from the dryer are vented to atmosphere.

Firing of the dried product is undertaken in high-temperature kilns. As the clay products are heated, fluoride, chloride, sulphur and other elements naturally present in the clays are emitted into the air in the kiln, along with more water vapour. The release rates vary over the firing cycle and generally peak at temperatures of around 800°C, depending on the raw material, product and kiln conditions. Some of the raw material additives are also burnt off during firing.

Kiln exhaust gas emissions are discharged to air after being abated through Dry Injection Fabric Filter (DIFF) scrubbers dosed with an alkaline scrubbing reagent with the exception of Kiln 11 which is a single compartment DIFF. The principle emissions to air are acid chloride and fluoride gases, oxides of nitrogen, oxides of sulphur, VOCs and particulates.

Operational procedures and controls are used to minimise dust emissions from raw materials storage and handling operations.

There are no discharges to water or land from the premises.

On 16 September 2015 Boral Bricks Western Australia Pty Ltd applied to DER for an amendment to the licence to remove the requirement to conduct ambient monitoring for hydrogen fluoride. The removal of ambient monitoring conditions from a similar premises is the subject of an appeal to the Minister for Environment. To ensure consistency in regulation, DER will defer the determination of this amendment until the outcome of the appeal is known.

This Decision Document addresses an application by Boral Brick Western Australia Pty Ltd to change the boundary of the prescribed premises. The change to the premises boundary is to remove land which is not directly related to the prescribed activity.

DER has reviewed the amendments and considers that the risk profile of emissions from the premises has not changed and no other changes to conditions have been proposed.

4 Decision table

All applications are assessed in line with the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987* and DER's Operational Procedure on Assessing Emissions and Discharges from Prescribed Premises. Where other references have been used in making the decision, they are detailed in the decision document.

DECISION TABLE			
Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Licence particulars	Premises Address	The change of boundary amends the cadastral details of the premises. Several lots have become part lots and the cadastral information has been amended to include details of the subdivided lots in the southwestern part of the premises. The premises boundary is now defined by land on which the prescribed activities are undertaken.	Applicant supplied documentation
	Prescribed activities	<p>Category 77 concrete batching or cement products manufacturing - premises on which cement products or concrete are manufactured for use at places or premises other than those premises, has been added as a prescribed activity.</p> <p>A cement products plant with a capacity of 200,000 tonnes per year was constructed in accordance with Works Approval W4316/1967/1 issued on 10 April 2007 and commissioned in 2010. The facility is entirely enclosed in a building and does not cause emissions to the environment. The category was not included on the licence when it was renewed in 2012. The facility is regulated under the <i>Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998</i>.</p>	<i>Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998</i>
General Conditions	L1.1.2 Schedule 1	<p>The boundary of the premises as defined in Schedule 1 has been changed to match the area of the prescribed activity. The area of the prescribed premises has been reduced by 22.71 ha to 65.83 ha. The principal areas removed are:</p> <ul style="list-style-type: none"> Land on the northern boundary adjacent to Reid Highway - part of which will be used by main roads for the future development of the Reid Highway and Great Northern Highway intersection, and part of which will be retained as a sales display area for Boral Bricks Western Australia; An area of open space and old school buildings on the south of the premises, bounded by Bassett Road, Leslie Road, Richardson Road and Eveline Road that 	Applicant supplied documentation



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		<p>may be sold in the future; and</p> <ul style="list-style-type: none">A triangular area of unused land on the north-west boundary adjacent to the Swan River and a possible future extension of Bernley Drive, Viveash. <p>The boundary changes cause no additional risk to the environment, however, should there be a change in land use in these areas in the future, consideration should be given to the impact of noise, dust and gaseous emissions on any future sensitive receptors.</p>	
Administrative amendment	L3.3.2	A typographical error has been corrected. The condition of the original licence referred to condition 3.2.1 and it has been amended to condition 3.3.1.	
Improvement Conditions	L4.1.1 of the original licence	The improvement requirements have been removed. The licensee supplied the required information by the completion dates.	Applicant Supplied Documentation.



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
31/03/2016	Draft amended licence sent to licensee	Comments received confirming that boundary and cadastral details were correct	Not Applicable

6 Risk Assessment

Note: This matrix is taken from the DER Corporate Policy Statement No. 07 - Operational Risk Management

Table 1: Emissions Risk Matrix

Likelihood	Consequence				
	Insignificant	Minor	Moderate	Major	Severe
Almost Certain	Moderate	High	High	Extreme	Extreme
Likely	Moderate	Moderate	High	High	Extreme
Possible	Low	Moderate	Moderate	High	Extreme
Unlikely	Low	Moderate	Moderate	Moderate	High
Rare	Low	Low	Moderate	Moderate	High