



Works Approval

Environmental Protection Act 1986, Part V

Works Approval Holder: Boral Resources (WA) Limited

Works Approval Number: W5387/2013/1

Registered office: Level 3
40 Mount Street
NORTH SYDNEY WA 2060

ACN: 008 686 904

Premises address: Boral Quarries Orange Grove
Lot 453 on Plan 3327 Grant Street, Lots 457, 465, 466 and 467 on Plan 3327, Lot 101 on Diagram 90993 Stephen Street, Lot 113 on Plan 248353 Hardinge Road, Lot 50 on Plan 42517 and Lot 181 on Plan 250164
ORANGE GROVE WA 6109

Issue date: Thursday, 20 June 2013

Commencement date: Thursday, 20 June 2013

Expiry date: Tuesday, 19 June 2018

The following category/s from the *Environmental Protection Regulations 1987* cause this Premises to be a prescribed premises for the purposes of the *Environmental Protection Act 1986*:

Category number	Category description	Category production or design capacity	Approved premises production or design capacity
12	Screening etc. of material	50,000 tonnes or more per year	2,000,000 tonnes per year
13	Crushing of building material	1,000 tonnes or more per year	36,000 tonnes per year
35	Asphalt manufacturing	Not Applicable	300,000 tonnes per year

Conditions

This Works Approval is subject to the conditions set out in the attached pages.

Date signed: 22 October 2015

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Danielle Eyre

Officer delegated under section 20
of the *Environmental Protection Act 1986*



Works Approval Conditions

1 General

1.1 Interpretation

1.1.1 In the Works Approval, definitions from the *Environmental Protection Act 1986* apply unless the contrary intention appears.

1.1.2 In the Works Approval, unless the contrary intention appears:

'Act' means the *Environmental Protection Act 1986*;

'CEO' means Chief Executive Officer of the Department of Environment Regulation;
Chief Executive Officer
Department Administering the Environmental Protection Act 1986
Locked Bag 33
CLOISTERS SQUARE WA 6850
Email: info@der.wa.gov.au

'Commissioning' means the process of operation and testing that verifies the works and all relevant systems, plant, machinery and equipment have been installed and are performing in accordance with the design specification set out in the works approval application;

'Phase 1' means construction of the primary and secondary crushing and screening plant and equipment;

'Phase 2' means the decommissioning of the existing primary and secondary crushing and screening plant and equipment;

'Phase 3' means the reconfiguration and enclosing of the tertiary and quaternary crushing and screening plants and equipment;

'Premises' means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on page 1 of the Works Approval;

'Schedule 1' means Schedule 1 of this Works Approval unless otherwise stated;

'Works Approval' means this Works Approval numbered W5387/2013/1 and issued under the Act;

'Works Approval Holder' means the person or organisation named as the Works Approval Holder on page 1 of the Works Approval;

1.1.3 Any reference to an Australian or other standard in the Works Approval means the relevant parts of the standard in force from time to time during the term of this Works Approval.

1.1.4 Any reference to a guideline or code of practice in the Works Approval means the current version of the guideline or code of practice in force from time to time, and shall include any amendments or replacements to that guidelines or code of practice made during the term of this Works Approval.



1.2 General conditions

1.2.1 The Works Approval Holder shall construct the works in accordance with the documentation detailed in Table 1.2.1:

Table 1.2.1: Construction Requirements ¹		
Document	Parts	Date of Document
'Noise Assessment, New Crusher Location, Boral Quarry, Orange Grove, WA', SLR Consulting Australia Pty Ltd	All	27 March 2012
Email Correspondence dated 4 July 2012 and attached 'Boral Construction Materials – Quarries Orange Grove, WA. Primary Crushing Station Relocation Project. Proposed Concept.', Boral Resources (WA) Ltd	All, including Drawings and Appendices	4 July 2012
Email Correspondence dated 25 January 2013 and attached 'Boral Resources (WA) Ltd, Orange Grove Quarry Primary Crusher Relocation Project. DEC Works Approval Supporting Documentation, January 2013.', Boral Resources (WA) Ltd	All, including Drawings and Appendices	25 January 2013
Email correspondence: RE: works approval - extra info required, Peter Male to Lauren Fox	All	22 April 2013
Email correspondence dated: RE: works approval - extra info required, Brian McGinnity to Lauren Fox	All	22 April 2013
Email correspondence: FW: Boral Crusher Relocation, Peter Male to Lauren Fox	All	31 May 2013
Email correspondence dated 5 December 2014 and attached 'Boral Resources (WA) Ltd, Orange Grove Quarry Crusher Upgrade Project. DER Works Approval Amendment W5387/2013/1 Supporting Documentation, December 2014, Boral Resources (WA) Ltd	All, including Drawings and Appendices	5 December 2014
Email correspondence dated 15 December 2014 and attached Form P4 'Application to Transfer or Amend a Licence, Works Approval or Registration', Boral Resources (WA) Ltd	All	15 December 2014
Email correspondence: RE: Crusher upgrade WA amendment W5387, Peter Male to Lauren Fox	All	18 December 2014

Note 1: Where the details and commitments of the documents listed in condition 1.2.1 are inconsistent with any other condition of this works approval, the conditions of this works approval shall prevail.

1.2.2 The Works Approval Holder shall undertake commissioning in accordance with the commissioning plans required under IR1 and IR2 of condition 4.2.1.

1.2.3 The Works Approval Holder shall commission each Phase 1 and Phase 3, for a period not exceeding 3 months.

2 Improvements

2.1.1 The Works Approval Holder shall complete the improvements in Table 2.1.1 by the date of completion in Table 2.1.1.

Table 2.1.1: Improvement program		
Improvement reference	Improvement	Date of completion
IR1	The Works Approval Holder shall, prior to commencing commissioning of Phase 1 of the primary and secondary crusher construction, submit a commissioning plan to the CEO. The commissioning plan shall include details relating to: (a) the commissioning stages and expected timescales for commissioning;	28 days prior to commencing commissioning of Phase 1



	<ul style="list-style-type: none"> (b) expected emissions and discharges during commissioning and the environmental implications of the emissions; (c) how emissions and discharges will be managed during commissioning; (d) the monitoring that will be undertaken during the commissioning period; (e) how accidents or malfunctions will be managed; (f) start up and shut down procedures; and (g) reporting proposals including accidents, malfunctions and reporting against the commissioning plan. <p>Commissioning shall be carried out in accordance with the commissioning plan.</p>	
IR2	<p>The Works Approval Holder shall, prior to commencing commissioning of Phase 3 of the upgrades to the tertiary and quaternary crushing and screening plant, submit a commissioning plan to the CEO. The commissioning plan shall include details relating to:</p> <ul style="list-style-type: none"> (h) the commissioning stages and expected timescales for commissioning; (i) expected emissions and discharges during commissioning and the environmental implications of the emissions; (j) how emissions and discharges will be managed during commissioning; (k) the monitoring that will be undertaken during the commissioning period; (l) how accidents or malfunctions will be managed; (m) start up and shut down procedures; and (n) reporting proposals including accidents, malfunctions and reporting against the commissioning plan. <p>Commissioning shall be carried out in accordance with the commissioning plan.</p>	28 days prior to commencing commissioning of Phase 3
IR3	<p>The Works Approval Holder shall undertake a noise assessment of the Premises during commissioning of Phase 1. A report on the noise assessment shall be prepared in accordance with the <i>Environmental Protection (Noise) Regulations 1997 (Noise Regulations)</i>.</p> <p>The report shall be submitted to the CEO and shall include:</p> <ul style="list-style-type: none"> (a) methods used for monitoring and modelling of noise; (b) an assessment of whether noise emissions from the Premises comply with the assigned noise level in the Noise Regulations; and (c) where they are not met, proposed measures to reduce noise emissions to assigned levels together with timescales for implementing the proposed measures. 	<p>Noise assessment to be undertaken during commissioning of Phase 1.</p> <p>Report to be submitted within 28 days of commissioning being completed for Phase 1</p>
IR4	<p>The Works Approval Holder shall undertake a noise assessment of the Premises during commissioning of Phase 3. A report on the noise assessment shall be prepared in accordance with the <i>Environmental Protection (Noise) Regulations 1997 (Noise Regulations)</i>. The report shall be submitted to the CEO and shall include:</p> <ul style="list-style-type: none"> (d) methods used for monitoring and modelling of noise; (e) an assessment of whether noise emissions from the Premises comply with the assigned noise level in the Noise Regulations; and <p>where they are not met, proposed measures to reduce noise emissions to assigned levels together with timescales for implementing the proposed measures.</p>	<p>Noise assessment to be undertaken during commissioning of Phase 3.</p> <p>Report to be submitted within 28 days of commissioning being completed for Phase 3</p>



3 Information

3.1 Reporting

- 3.1.1 The Works Approval Holder shall submit a compliance document to the CEO, following the construction of each of Phase 1, Phase 2 and Phase 3 of the works and prior to commissioning of the same for Phase 1 and Phase 3.
- 3.1.2 The compliance document shall:
- (a) certify that the works were constructed in accordance with the conditions of the works approval;
 - (b) be signed by a person authorised to represent the Works Approval Holder and contain the printed name and position of that person within the company.
- 3.1.3 The Works Approval Holder shall submit a commissioning report for the each Phase 1 and Phase 3 to the CEO within one month of the completion of commissioning.
- 3.1.4 The Works Approval Holder shall ensure the report includes;
- (a) a list of any original monitoring reports submitted to the Licensee from third parties for the commissioning period;
 - (b) a summary of the environmental performance of the plant as installed, against the design specification set out in the works approval application;
 - (c) a review of performance against the works approval conditions; and
 - (d) where they have not been met, measures proposed to meet the design specification and/or works approval conditions, together with timescales for implementing the proposed measures.

3.2 Notification

- 3.2.1 The Works Approval Holder shall ensure that the parameters listed in Table 3.2.1 are notified to the CEO and are in accordance with the notification requirements of the table.

Table 3.2.1: Notification requirements			
Condition or table (if relevant)	Parameter	Notification requirement	Format or form
1.2.3	Commencement of commissioning for each Phase 1 and Phase 3	7 days prior to start	None specified
	Completion of commissioning for each Phase 1 and Phase 3	7 days after completion	



Schedule 1: Maps

Premises map

The Premises is shown in the map below. The pink line depicts the Premises boundary.





Decision Document

Environmental Protection Act 1986, Part V

Proponent: **Boral Resources (WA) Limited**

Works Approval: **W5387/2013/1**

Registered office: Level 3
40 Mount Street
NORTH SYDNEY WA 2060

ACN: 008 686 904

Premises address: Boral Quarries Orange Grove
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3327, Lot 101 on Diagram 90993 Stephen Street, Lot 113 on Plan 248353
Hardinge Road, Lot 50 on Plan 42517 and Lot 181 on Plan 250164
ORANGE GROVE WA 6109

Issue date: Thursday, 20 June 2013

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Expiry date: Tuesday, 19 June 2018

Decision

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

Decision Document prepared by: **Lindy Twycross**
Licensing Officer

Decision Document authorised by: **Danielle Eyre**
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 type="checkbox"/> Works Approval amendment <input checked="" type="checkbox"/>	
Activities that cause the premises to become prescribed premises	Category number(s)	Assessed design capacity
	12	2,000,000 tonnes per year
	13	36,000 tonnes per year
	35	300,000 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	N/A	
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"/>	EPA reference No: A606495:OEPA2010/158 Managed under Part V <input type="checkbox"/> Assessed under Part IV <input checked="" type="checkbox"/> EPA determined that the proposal is consistent with the requirements of Ministerial



		Statement No. 170 and that no further action is required under Part IV.
Is the proposal subject to Ministerial Conditions?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Ministerial statement No: 170 EPA Report No:
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: N/A	
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

Boral is an international building and construction materials group, with its headquarters in Sydney, Australia. Boral produces and distributes a broad range of construction materials, including quarry products, cement, fly ash, pre-mix concrete and asphalt; and building products, including clay bricks and pavers, clay and concrete roof tiles, concrete masonry products, plasterboard, windows and timber.

Boral is currently accredited with AS/NZS ISO 9001:2008. Boral holds numerous licences across the State under the *Environmental Protection Act 1986* (Act). Boral is currently licensed under L6822/1967/13 for prescribed premises categories 12, 13 and 35 to operate the Orange Grove Quarry which is located on Stephen Street in Orange Grove. The premises is located along the Darling Scarp in the suburb of Orange Grove approximately 18km south-east of Perth CBD in the City of Gosnells.

The premises is located within an area zoned General Rural. Planning approval has been granted by the Western Australian Planning Commission for the existing asphalt plant and an extractive industries licence has been obtained from the City of Gosnells. The Development Approval for the plant upgrade works was referred from the City of Gosnells to the WA Planning Commission. Approval for the proposal was granted by the Metropolitan East Development Assessment Panel on 1 July 2015. Planning approval is valid for a period of 2 years and Boral must comply with the City's requirements under this approval.

The occupier was issued approval under works approval W5387/2013/1 to construct a new primary crusher in a different location within their existing premises. The existing crusher will remain operational until the new plant has been completed. The existing crusher will then be decommissioned. The new crusher will be a Terex Jaques 1525 * 1220 Double Toggle Jaw Crusher or similar and will be enclosed in a building constructed of 0.6mm metal sheeting.

An amendment was issued on 9 July 2015 to include additional works under W5387/2013/1 to include the construction of a new secondary crushing plant as well as reconfiguring and enclosing the tertiary and quaternary crushing and screening plant. The amendment included a minor change of location to the proposed primary crushing plant.

The works approval was amended into a staged project with the following phases:

Phase 1

The primary crusher location to be amended to an area approximately 40 metres north-east of the original proposed location, further into the Stage 2 Pit and further from sensitive receptors and 10



metres lower in topography than the existing primary plant. The design and specifications for the primary crusher have not been altered in any way.

A new secondary crusher plant will also be constructed closer to Stage 2 Pit. The secondary crusher will either be a Metso HP500 cone crusher, a Sandvik CH660 cone crusher, or similar. The new secondary crusher will be fully enclosed in a building constructed of 0.6mm metal sheeting to assist in reducing dust and noise emissions.

It is anticipated that the construction of Phase 1 will take 10 months commencing in November 2015.

Phase 2

The existing primary and secondary crushers will be decommissioned under this phase. No construction works will be occurring under this Phase nor will any commissioning be required. The decommissioning is likely to take approximately 2 months to complete and will begin at the completion of Phase 1 works.

Phase 3

The tertiary and quaternary crushing and screening plant will be reconfigured and enclosed. The reconfiguration of these plants is anticipated to take approximately 10 months.

Phase 3 includes the following works:

- Relocation of the tertiary and quaternary plants to be located immediately adjacent to the south of existing location;
- Crushers will be assembled together on one structure (instead of the existing two structures) and enclosed;
- Screens will be assembled together onto one structure (replacing the existing three) and enclosed;
- All conveyors will be enclosed; and
- Transfer points, where possible, will be located inside the enclosed structure.

To allow sufficient time for construction of all three phases, Boral had requested that the works approval duration be extended for a period of three years from the date of amendment. However, after issue of the amendment on 9 July 2015, it was noted that an administrative error had been made and the expiry date had not been extended.

This amendment is to extend the expiry date to 19 June 2018 to correct the administrative error. For issue of this amendment, DER has not re-assessed the acceptability or impacts of emissions and discharges from the Premises or any existing emission control levels.



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			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Works Approval Duration	N/A	<p>As part of the previous amendment issued on 9 July 2015, the occupier had requested the expiry date be extended to 19 June 2018 to ensure that all works are completed within the specified timeframe. The Decision Document stated that the emission risks associated with the amendment can be adequately managed and addressed under the works approval and existing licence conditions, and that the expiry date of the amendment would be extended to 19 June 2018.</p> <p>An administrative error was made and the works approval expiry extension was not included in the amended works approval W5387/2013/1. This amendment corrects the administrative error and will extend the expiry date to 19 June 2018.</p>	Application supporting documentation



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
18/03/2013	Original works approval application advertised in West Australian (or other relevant newspaper)	No submissions were received	N/A
6/02/2015	Draft amended instrument referred to: <ul style="list-style-type: none">• City of Gosnells;• Gosnells District Progress and Ratepayers Association (Inc);• Four identified community members with a direct interest in the quarry operations.	Comments received from the City of Gosnells advising that planning approval has not been lodged for this application and that a works approval should not be issued until planning approval has been granted. The comments were queried by DER as they seemed to relate to a new works approval, rather than an amendment. The City reiterated that there was no current planning approval. No other comments were received.	This proposal is to amend an existing works approval which has already been granted. At the time the application for the works approval was received, comments were sought from the City in March 2013 but no comments were received. The City also did not provide any comments when the works approval was issued in June 2013. Planning approval for the proposal was granted by the Metropolitan East Development Assessment Panel on 1 July 2015.
6/02/2015	Proponent sent a copy of draft amended instrument	Comments received regarding minor changes to wording of definitions and executive summary.	Minor changes made as requested.
9/07/2015	Amended instrument sent to the Proponent.	Works Approval Holder noted error in that expiry date had not been extended to 19 June 2018.	Amendment to correct administrative error
19/10/2015	Draft amended instrument to extend the expiry date sent to the Works Approval holder.	No comments made.	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