



Government of **Western Australia**
Department of **Environment Regulation**

Your ref L8316/2008/2
Our ref DER2013/000915
Enquiries Chris Slavin
Phone 9182 2035
Fax 9144 1118
Email Christopher.Slavin@DER.wa.gov.au

Mr Peter Male
Environmental Manager
Boral Resources (WA) Ltd
PO BOX 268
BELMONT WA 6984

Dear Mr Male

ENVIRONMENTAL PROTECTION ACT 1986: LICENCE GRANTED

Premises: Turner River Quarry
Location: Mining Tenements M45/295 M45/303 and M45/402 BOODARIE WA 6722
Licence Number: L8316/2008/2

A licence under the *Environmental Protection Act 1986* (the Act) has been granted for the above premises. The Department of Environment Regulation will advertise the issuing of this licence in the public notices section of *The West Australian* newspaper.

The licence includes attached conditions. Under section 58(1) of the Act, it is an offence to contravene a condition of a licence. This offence carries a penalty of up to \$125,000 and a daily penalty of up to \$25,000.

In accordance with section 102(1)(c) of the Act, you have 21 days to appeal the conditions of the licence. Under section 102(3)(a) of the Act, any other person may also appeal the conditions of the licence. To lodge an appeal contact the Office of the Appeals Convenor on 6467 5190 or by email at admin@appealsconvenor.wa.gov.au.

Where a licence is issued for more than one year it requires payment of an annual fee and will cease to have effect if the fee is unpaid. It is the occupier's responsibility to lodge a fee application and pay the annual fee in sufficient time to avoid incurring a late payment fee and for processing to be completed before the licence anniversary date.

If you have any queries regarding the above information, please contact Chris Slavin on 9182 2035.

Yours sincerely,

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

Thursday, 22 May 2014

enc: *Environmental Protection Act 1986* Licence L8316/2008/2, Decision document
cc: Copy sent to the Town of Port Hedland



Licence

Environmental Protection Act 1986, Part V

Licensee: Boral Resources (WA) Ltd

Licence: L8316/2008/2

Registered office: 50 Bridge St
SYDNEY WA 2000

ACN: 008 686 904

Premises address: Turner River Quarry
Mining Tenements: M45/295, M45/303, and M45/402
BOODARIE WA 6722
As depicted in Schedule 1

Issue date: Thursday, 22 May 2014

Commencement date: Sunday, 25 May 2014

Expiry date: Friday, 24 May 2019


Prescribed premises category

Schedule 1 of the *Environmental Protection Regulations 1987*

Category number	Category description	Category production or design capacity	Approved premises production or design capacity
12	Screening etc. of material: premises (other than premises within category 5 or 8) on which material extracted from the ground is screened, washed, crushed, ground, milled, sized or separated.	50,000 tonnes or more per year	100,000 tonnes per annual period

Conditions

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


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



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Introduction

This Introduction is not part of the Licence conditions.

DER's industry licensing role

The Department of Environment Regulation (DER) is a government department for the state of Western Australia in the portfolio of the Minister for Environment. DER's purpose is to protect and conserve the state's environment on behalf of the people of Western Australia.

DER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process DER works with the business owners, community, consultants, industry and other representatives to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DER also monitor and audit compliance with works approvals and licence conditions, take enforcement action as appropriate and develop and implement licensing and industry regulation policy.

Licence requirements

This Licence is issued under Part V of the Act. Conditions contained within the Licence relate to the prevention, reduction or control of emissions and discharges to the environment and to the monitoring and reporting of them.

Where other statutory instruments impose obligations on the Premises/Licensee the intention is not to replicate them in the Licence conditions. You should therefore ensure that you are aware of all your statutory obligations under the Act and any other statutory instrument. Legislation can be accessed through the State Law Publisher website using the following link:

<http://www.slp.wa.gov.au/legislation/statutes.nsf/default.html>

For your Premises relevant statutory instruments include but are not limited to obligations under the:

- *Environmental Protection (Unauthorised Discharges) Regulations 2004* – these Regulations make it an offence to discharge certain materials such as contaminated stormwater into the environment other than in the circumstances set out in the Regulations.
- *Environmental Protection (Controlled Waste) Regulations 2004* - these Regulations place obligations on you if you produce, accept, transport or dispose of controlled waste.
- *Environmental Protection (Noise) Regulations 1997* – these Regulations require noise emissions from the Premises to comply with the assigned noise levels set out in the Regulations.



Licence holders are also reminded of the requirements of section 53 of the Act which places restrictions on making certain changes to prescribed premises unless the changes are in accordance with a works approval, licence, closure notice or environmental protection notice.

Licence fees

If you have a licence that is issued for more than one year, you are required to pay an annual licence fee prior to the anniversary date of issue of your licence. Non payment of annual licence fees will result in your licence ceasing to have effect meaning that it will no longer be valid and you will need to apply for a new licence for your Premises.

Ministerial conditions

If your Premises has been assessed under Part IV of the Act you may have had conditions imposed by the Minister for Environment. You are required to comply with any conditions imposed by the Minister.

Premises description and Licence summary

Boral Resources (WA) Ltd (Boral) operates the Turner River Sand Extraction operation within mining leases M45/295, M45/303 and M45/402. The mining leases are approximately 22 kilometres (km) southwest of Port Hedland, along the Northwest Coastal Highway, 5kms northwest of Boodarie.

The Turner River has been a source of sand for Port Hedland for many years. Sand has been extracted from the river bed since the 1980's. The sand is used as concrete, fill and for other construction needs.

Sand is extracted from the riverbed and stockpiled in designated areas in accordance with plans approved by the Department of Mines and Petroleum (DMP). Mobile crushing and screening equipment is brought onto the site as required to process the material. The mobile equipment has a nominated throughput rate of 250 tonnes per hour.

This Licence is successor to L8316/2008/1. The Licences and Works Approvals issued for the Premises since 25/05/2014 are:

Instrument log		
Instrument	Issued	Description
8316/2008/1	21/05/2008	New application
8316/2008/2	22/05/2014	Licence reissue to REFIRE format

Severance

It is the intent of these Licence conditions that they shall operate so that, if a condition or a part of a condition is beyond the power of this Licence to impose, or is otherwise *ultra vires* or invalid, that condition or part of a condition shall be severed and the remainder of these conditions shall nevertheless be valid to the extent that they are within the power of this Licence to impose and are not otherwise *ultra vires* or invalid.

END OF INTRODUCTION



Licence conditions

1 General

1.1 Interpretation

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

1.1.2 For the purposes of this Licence, unless the contrary intention appears:

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

'annual period' means the inclusive period from 1 July until 30 June in the following year;

'CEO' means Chief Executive Officer of the Department of Environment Regulation;

'CEO' for the purpose of correspondence means;

Manager Licensing (North West)
Department of Environment Regulation
PO Box 835
KARRATHA WA 6714
Telephone: (08) 9182 2000
Facsimile: (08) 9144 1118
Email: industryregpilbara@der.wa.gov.au;

'code of practice for the storage and handling of dangerous goods' means document titled "Storage and handling of dangerous goods: Code of Practice" published by the Department of Mines and Petroleum, as amended from time to time;

'controlled waste' has the definition in *Environmental Protection (Controlled Waste) Regulations 2004*;

'dangerous goods' has the meaning defined in the *Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007*;

'environmentally hazardous material' means material (either solid or liquid raw materials, materials in the process of manufacture, manufactured products, products used in the manufacturing process, by-products and waste) which if discharged into the environment from or within the premises may cause pollution or environmental harm. Note: Environmentally hazardous materials include dangerous goods where they are stored in quantities below placard quantities. The storage of dangerous goods above placard quantities is regulated by the Department of Mines and Petroleum;

'fugitive emissions' means all emissions not arising from point sources identified in Sections 2.2, 2.3, 2.4 and 2.5;

'Licence' means this Licence numbered L8316/2009/2 and issued under the Act;

'Licensee' means the person or organisation named as Licensee on page 1 of the Licence;

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

'Schedule 1' means Schedule 1 of this Licence unless otherwise stated; and



'Schedule 2' means Schedule 2 of this Licence unless otherwise stated.

- 1.1.3 Any reference to an Australian or other standard in the Licence means the relevant parts of the standard in force from time to time during the term of this Licence.
- 1.1.4 Any reference to a guideline or code of practice in the Licence means the version of that guideline or code of practice in force from time to time, and shall include any amendments or replacements to that guideline or code of practice made during the term of this Licence.

1.2 General conditions

- 1.2.1 Nothing in the Licence shall be taken to authorise any emission that is not mentioned in the Licence, where the emission amounts to:
- (a) pollution;
 - (b) unreasonable emission;
 - (c) discharge of waste in circumstances likely to cause pollution; or
 - (d) being contrary to any written law.
- 1.2.2 The Licensee shall operate and maintain all pollution control and monitoring equipment to the manufacturer's specification or any relevant and effective internal management system.
- 1.2.3 The Licensee, except where storage is prescribed in section 1.3, shall ensure that environmentally hazardous materials are stored in accordance with the code of practice for the storage and handling of dangerous goods.
- 1.2.4 The Licensee shall immediately recover, or remove and dispose of spills of environmentally hazardous materials outside an engineered containment system.
- 1.2.5 The Licensee shall:
- (a) implement all practical measures to prevent stormwater run-off becoming contaminated by the activities on the Premises; and
 - (b) treat contaminated or potentially contaminated stormwater as necessary prior to being discharged from the Premises.¹

Note1: The *Environmental Protection (Unauthorised Discharges) Regulations 2004* make it an offence to discharge certain materials into the environment.

1.3 Premises operation

There are no specified conditions relating to Premises operation in this section.

2 Emissions

2.1 General

- 2.1.1 The Licensee shall record and investigate the exceedance of any descriptive or numerical limit or target specified in any part of section 2 of this Licence.

2.2-2.4 Point source emissions to air, surface water and groundwater

There are no specified conditions relating to point source emissions to air, surface water or groundwater in these sections.

2.5 Emissions to land

There are no specified conditions relating to emissions to land in this section.

2.6 Fugitive emissions



2.6.1 The Licensee shall use all reasonable and practical measures to prevent and where that is not practicable to minimise dust emissions from the Premises.

2.6.2 The Licensee shall ensure that no visible dust generated by the activities of the Premises crosses the boundary of the Premises.

2.7 Odour

There are no specified conditions relating to odour in this section.

2.8 Noise

There are no specified conditions relating to noise in this section.

3 Monitoring

There are no specified conditions relating to monitoring in this section.

4 Improvements

There are no specified improvement conditions in this section.

5 Information

5.1 Records

5.1.1 All information and records required by the Licence shall:

- (a) be legible;
- (b) if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
- (c) except for records listed in 5.1.1(d) be retained for at least 6 years from the date the records were made or until the expiry of the Licence or any subsequent licence; and
- (d) for those following records, be retained until the expiry of the Licence and any subsequent licence:
 - (i) off-site environmental effects; or
 - (ii) matters which affect the condition of the land or waters.

5.1.2 The Licensee shall ensure that:

- (a) any person left in charge of the Premises is aware of the conditions of the Licence and has access at all times to the Licence or copies thereof; and
- (b) any person who performs tasks on the Premises is informed of all of the conditions of the Licence that relate to the tasks which that person is performing.

5.1.3 The Licensee shall complete an Annual Audit Compliance Report indicating the extent to which the Licensee has complied with the conditions of the Licence, and any previous licence issued under Part V of the Act for the Premises for the previous annual period.

5.1.4 The Licensee shall implement a complaints management system that as a minimum records the number and details of complaints received concerning the environmental impact of the activities undertaken at the Premises and any action taken in response to the complaint.

5.2 Reporting

5.2.1 The Licensee shall submit to the Director an Annual Environmental Report within 28 calendar days after the end of the annual period. The report shall contain the information listed in Table 5.2.1 in the format or form specified in that table.



Table 5.2.1: Annual Environmental Report		
Condition or table (if relevant)	Parameter	Format or form ¹
-	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken	None specified
5.1.3	Compliance	Annual Audit Compliance Report (AACR)
5.1.4	Complaints summary	None specified
-	Measures taken to suppress dust	
-	Measures taken to minimise noise	

Note 1: Forms are in Schedule 2

5.3 Notification

5.3.1 The Licensee shall ensure that the parameters listed in Table 5.3.1 are notified to the Director in accordance with the notification requirements of the table.

Table 5.3.1: Notification requirements			
Condition or table (if relevant)	Parameter	Notification requirement ¹	Format or form ²
2.1.1	Breach of any limit specified in the Licence	Part A: As soon as practicable but no later than 5pm of the next usual working day. Part B: As soon as practicable	N1
-	Any failure or malfunction of any pollution control equipment or any incident, which has caused, is causing or may cause pollution		

Note 1: Notification requirements in the Licence shall not negate the requirement to comply with s72 of the Act

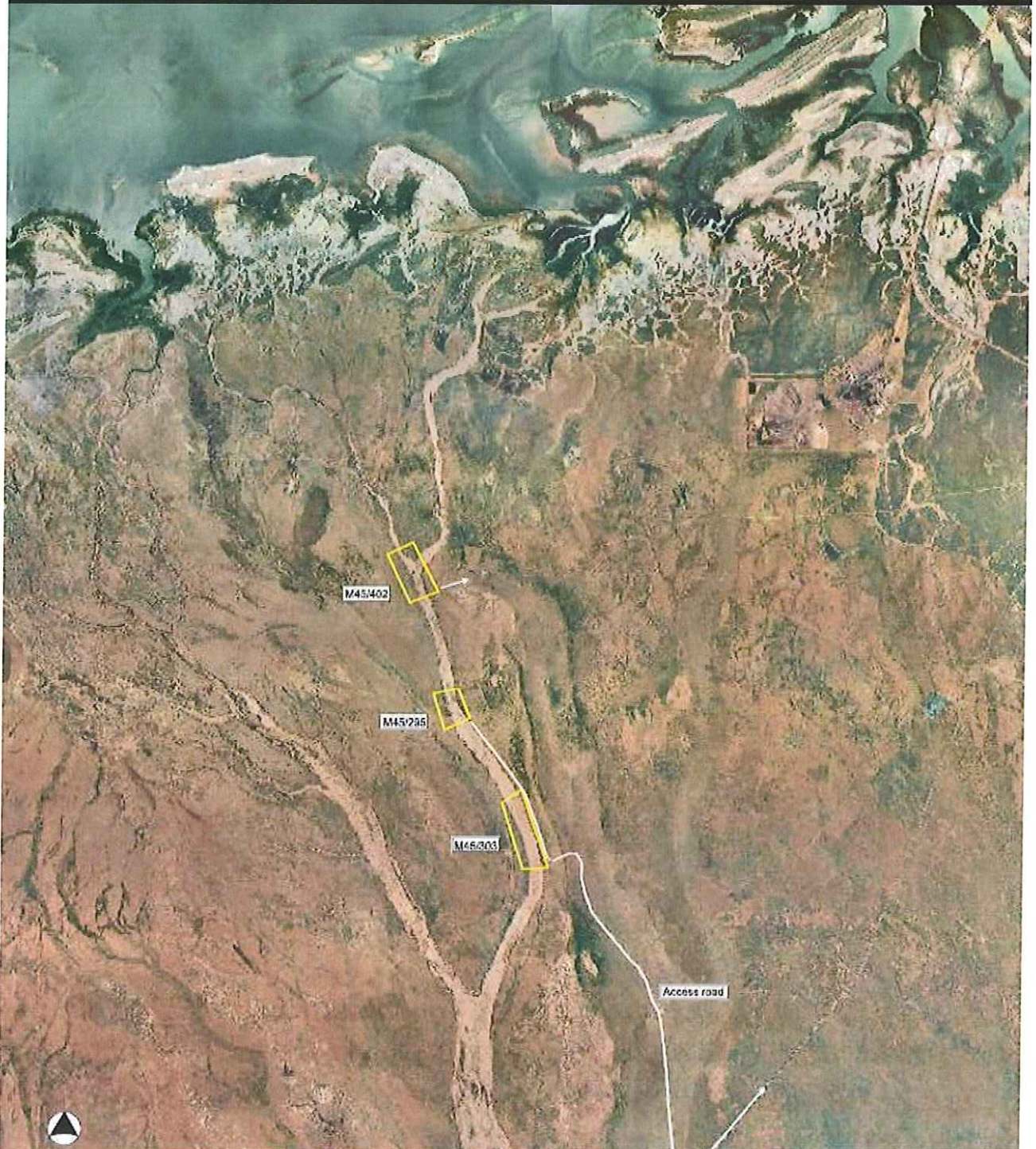
Note 2: Forms are in Schedule 2



Schedule 1: Maps

Premises map

The Premises is shown in the map below. The yellow lines depict the Mining Tenements in which Boral operate.





Schedule 2: Reporting & notification forms

These forms are provided for the proponent to report monitoring and other data required by the Licence. They can be requested in an electronic format.

ANNUAL AUDIT COMPLIANCE REPORT PROFORMA

SECTION A LICENCE DETAILS

Licence Number:	Licence File Number:
Company Name:	ABN:
Trading as:	
Reporting period: _____ to _____	

STATEMENT OF COMPLIANCE WITH LICENCE CONDITIONS

1. Were all conditions of the Licence complied with within the reporting period? (please tick the appropriate box)

Yes Please proceed to Section C

No Please proceed to Section B

Each page must be initialled by the person(s) who signs Section C of this Annual Audit Compliance Report (AACR).

Initial:



SECTION B

DETAILS OF NON-COMPLIANCE WITH LICENCE CONDITION.

Please use a separate page for each licence condition that was not complied with.

a) Licence condition not complied with:	
b) Date(s) when the non compliance occurred, if applicable:	
c) Was this non compliance reported to DER?:	
<input type="checkbox"/> Yes	<input type="checkbox"/> Reported to DER verbally Date _____
	<input type="checkbox"/> Reported to DER in writing Date _____
<input type="checkbox"/> No	
d) Has DER taken, or finalised any action in relation to the non compliance?:	
e) Summary of particulars of the non compliance, and what was the environmental impact:	
f) If relevant, the precise location where the non compliance occurred (attach map or diagram):	
g) Cause of non compliance:	
h) Action taken, or that will be taken to mitigate any adverse effects of the non compliance:	
i) Action taken or that will be taken to prevent recurrence of the non compliance:	

Each page must be initialled by the person(s) who signs Section C of this AACR

Initial:



SECTION C

SIGNATURE AND CERTIFICATION

This Annual Audit Compliance Report (AACR) must only be signed by a person(s) with legal authority to sign it. The ways in which the AACR must be signed and certified, and the people who may sign the statement, are set out below.

Please tick the box next to the category that describes how this AACR is being signed. If you are uncertain about who is entitled to sign or which category to tick, please contact the licensing officer for your premises.

If the licence holder is		The Annual Audit Compliance Report must be signed and certified:
An individual	<input type="checkbox"/> <input type="checkbox"/>	by the individual licence holder, or by a person approved in writing by the Chief Executive Officer of the Department of Environment Regulation to sign on the licensee's behalf.
A firm or other unincorporated company	<input type="checkbox"/> <input type="checkbox"/>	by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
A corporation	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	by affixing the common seal of the licensee in accordance with the <i>Corporations Act 2001</i> ; or by two directors of the licensee; or by a director and a company secretary of the licensee, or if the licensee is a proprietary company that has a sole director who is also the sole company secretary – by that director, or by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
A public authority (other than a local government)	<input type="checkbox"/> <input type="checkbox"/>	by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
a local government	<input type="checkbox"/> <input type="checkbox"/>	by the chief executive officer of the licensee; or by affixing the seal of the local government.

It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular. There is a maximum penalty of \$50,000 for an individual or body corporate.

I/We declare that the information in this annual audit compliance report is correct and not false or misleading in a material particular.

SIGNATURE: _____

SIGNATURE: _____

NAME:
(printed) _____

NAME:
(printed) _____

POSITION: _____

POSITION: _____

DATE: ____/____/____

DATE: ____/____/____

SEAL (if signing under seal)



Government of **Western Australia**
Department of **Environment Regulation**

Licence: L8316/2009/2
Form: N1

Licensee: Boral Resources WA (Ltd)
Date of breach:

Notification of detection of the breach of a limit or any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution.

These pages outline the information that the operator must provide.
Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

Part A

Licence Number	
Name of operator	
Location of Premises	
Time and date of the detection	

Notification requirements for the breach of a limit	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Notification requirements for any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution	
Date and time of event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident	



Part B

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident.	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission.	
The dates of any previous N1 notifications for the Premises in the preceding 24 months.	

Name	
Post	
Signature on behalf of Boral Resources WA (Ltd)	
Date	



Decision Document

Environmental Protection Act 1986, Part V

Proponent: Boral Resources (WA) Ltd

Licence: L8316/2008/2

Registered office: 50 Bridge St
SYDNEY WA 2000

ACN: 008 686 904

Premises address: Turner River Quarry
Mining Tenements M45/295, M45/303, and M45/402
BOODARIE WA 6722.

Issue date: Thursday, 22 May 2014

Commencement date: Sunday, 25 May 2014

Expiry date: Friday, 24 May 2019

Decision

Based on the assessment detailed in this document the Department of Environment Regulation (DER), has decided to issue a Licence. DER considers that in reaching this decision, it has taken into account all relevant considerations and legal requirements and that the Licence and its conditions will ensure that an appropriate level of environmental protection is provided.

Decision Document prepared by: Chris Slavin
Regional Licensing Officer

Decision Document authorised by: Alana Kidd
Manager Licensing



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1 Purpose of this Document

This decision document explains how DER has assessed and determined the application for a works approval or licence, 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.

Works approval and licence conditions

DER has three types of conditions that may be imposed on works approvals and licences. They are as follows;

Standard conditions (SC)

DER has standard conditions that are imposed on all works approvals and licences regardless of the activities undertaken on the Premises and the information provided in the application. These are included as the following conditions on works approvals and licences:

Works approval conditions: 1.1.1-1.1.4, 1.2.1, 1.2.2, 5.1.1 and 5.1.2.

Licence conditions: 1.1.1-1.1.4, 1.2.1-1.2.4, 5.1.1-5.1.4 and 5.2.1.

For such conditions, justification within the Decision Document is not provided.

Optional standard conditions (OSC)

In the interests of regulatory consistency DER has a set of optional standard conditions that can be imposed on works approvals and licences. DER will include optional standard conditions as necessary, and are likely to constitute the majority of conditions in any licence. The inclusion of any optional standard conditions are justified in Section 4 of this document.

Non standard conditions (NSC)

Where the proposed activities require conditions outside the standard conditions suite DER will impose one or more non-standard conditions. These include both premises and sector specific conditions, and are likely to occur within few licences. Where used, justification for the application of these conditions will be included in Section 4.



2 Administrative summary

Administrative details		
Application type	Works Approval <input type="checkbox"/>	
	New Licence <input checked="" type="checkbox"/>	
	Licence amendment <input type="checkbox"/>	
	Works Approval amendment <input type="checkbox"/>	
Activities that cause the premises to become prescribed premises	Category number(s)	Assessed design capacity
	12	100 000 tonnes per annual period
Application verified	Date: 04/04/2014	
Application fee paid	Date: 16/04/2014	
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 type="checkbox"/>	No <input checked="" type="checkbox"/>
		Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Is the proposal subject to Ministerial Conditions?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
		Ministerial statement No: 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 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"/>
If Yes include details of which EPP(s) here.		
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
If Yes, include details here, eg Site is subject to SO ₂ requirements of Kwinana EPP.		



3 Executive summary of proposal

Boral Resources (WA) Ltd (Boral) currently operates the Turner River Sand Extraction operation (Sand Quarry) within mining leases M45/295, M45/303 and M45/402, which are situated on Boodarie Pastoral Lease. The mining leases are approximately 22 kilometres (km) southwest from Port Hedland along the Northwest Coastal Highway, approximately 5km northwest towards Boodarie.

Turner River has been a source of sand for Port Hedland for many years. Sand has been extracted from the river bed since the 1980's, and it is proposed to continue through these operations. The sand is used as concrete, fill and other construction needs. It is envisaged that the volumes to be processed at this site will continue in the range of up to 100,000 tonnes per annum depending on local demands and building developments.

Sand is excavated from the riverbed to a depth of 1-3m using an excavator depending on the type, depth and distribution of sand in each particular location. Sand is then stockpiled in designated areas in accordance with plans approved by the Department of Mines and Petroleum (DMP), which are out of the flood flow of the river in a situation where it can be accessed when the river is flowing.

All static and mobile equipment such as the excavator, transport and screens will be located on the bed of the river or in a stockpile area to provide visual and acoustic screening. The throughput of this equipment is rated at 250 tonnes per hour.

The sand is then loaded directly to a road truck for fill sand. Sand for concrete and specialty purposes is loaded into a small mobile screening plant for preparation of stockpiles of the various grades of sand.

The Sand Quarry is operated on a campaign basis in response to market demand. On average it has been operated 1-2 times per year. This may be subject to increase in response to market demand. Water is used for dust suppression as required, to reduce the potential for dust generation from the movement of machinery and the effect of wind.

All equipment and machinery is removed from the site whilst a campaign is not in operation i.e. when the river is flowing. A front end loader may remain onsite for load out purposes.

NSC	<p><i>Emission Significance - 1</i> <i>Socio-political context - No concern or interest.</i> <i>Risk Assessment – E – no regulation, other management mechanisms</i></p> <p>A standard condition relating to the storage of hazardous goods is included on the Licence. Boral will refuel machinery onsite. All hydrocarbons stored on site will be in accordance with Australian Standard 1940:2004.</p> <p>A standard condition relating to the prevention of stormwater becoming contaminated and treating contaminated stormwater before leaving the premises is included on the Licence.</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i>.</p> <p>Code of practice for the storage and handling of dangerous goods, Department of Mines and Petroleum, Government of Western Australia.</p> <p>Australian Standard 1940:2004.</p> <p>Application supporting documentation.</p>
OSC	<p>Descriptive limits are set through condition 2.6.2 of the licence and therefore OSC regarding recording and investigation of exceedances of limits or targets has been included.</p>	<p>N/A</p>
N/A	<p><i>Emission Significance - 1</i> <i>Socio-political context - No concern or interest.</i> <i>Risk Assessment – E – No regulation, other management</i></p>	<p>General provisions of the <i>Environmental Protection Act 1986</i>.</p>

		documentation.
N/A	<p><i>Emission Significance</i> – 1 <i>Socio-political context</i> – No concern or interest <i>Risk Assessment</i> – E – No regulation, other management mechanisms</p> <p>There will be no point source emissions to water during operation of the Sand Quarry. The Sand Quarry operates within the Turner River creek bed. Operations are only carried out when there is no water within the mining leases. The mining leases are not within a Public Drinking Water Source Area (PDWSA).</p> <p>No specified conditions relating to point source emissions to surface water or the monitoring of these emissions are required to be added to the Licence.</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i>.</p> <p><i>Environmental Protection (Unauthorised Discharges) Regulations, 2004</i>.</p> <p>Application supporting documentation.</p>
N/A	<p><i>Emission Significance</i> – 1 <i>Socio-political context</i> – No concern or interest <i>Risk Assessment</i> – E – No regulation, other management mechanisms</p> <p>No point source emissions to groundwater are expected from the operation of the Sand Quarry.</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i>.</p> <p><i>Environmental Protection (Unauthorised)</i></p>

of any bores/wells within 500m of tenement M45/303, where screening activities currently take place.

No specified conditions relating to point source emissions to groundwater are required to be added to the Licence.

Emission Significance – 1

Socio-political context – No concern or interest

Risk Assessment – E – No regulation, other management mechanisms

No emissions to land are expected from the operation of the Sand Quarry. Boral will ensure that:

- no major servicing of vehicles or machinery will be conducted onsite;
- no wash-down of hydrocarbons from vehicles or machinery will be conducted onsite; and
- any hydrocarbons stored onsite will be in accordance with AS1940:2004.

No specified conditions relating to point source emissions to land or the monitoring of these emissions are required to be added to the Licence.

General provisions of the *Environmental Protection Act 1986*.

Environmental Protection (Unauthorised Discharges) Regulations, 2004.

Application supporting documentation.

	<p>the boundary of the premises by:</p> <ul style="list-style-type: none"> • use of water cart where practical; • use of water sprays as required; • ceasing activities when conditions make dust management difficult; • limit the speed of all vehicles onsite; and • use of natural vegetating screening where possible. <p>Conditions relating to dust emissions are included on the Licence.</p>	<p><i>Regulations, 2004.</i></p> <p>Application supporting documentation.</p>
N/A	<p><i>Emission Significance – 1</i> <i>Socio-political context – No concern or interest</i> <i>Risk Assessment – E – No regulation, other management mechanisms</i></p> <p>No odour emissions are expected to be produced from the operation of the Sand Quarry. No specified conditions relating to odour are required to be added to the Licence.</p>	<p>General provisions of the <i>Environmental Protection Act 1986.</i></p> <p>Application supporting documentation.</p>
N/A	<p><i>Emission Significance – 1</i> <i>Socio-political context – No concern or interest</i> <i>Risk Assessment – E – No regulation, other management mechanisms</i></p>	<p>General provisions of the <i>Environmental Protection Act 1986.</i></p> <p><i>Environmental</i></p>

N/A	<p>Boral operate the Sand Quarry within mining leases M45/299, M45/303 and M45/402. Sand is extracted from the riverbed and stockpiled in designated areas. Unwanted material and debris is stockpiled aside and returned to the riverbed.</p> <p>No specified conditions relating to the monitoring of inputs and outputs are required on the Licence.</p>	N/A
N/A	No specified conditions relating to process monitoring are required to be added to the Licence.	N/A
N/A	No specified conditions relating to ambient quality monitoring are required on the Licence.	N/A
N/A	No specified conditions relating to meteorological monitoring are required on the Licence.	N/A
N/A	No specified conditions relating to meteorological monitoring are required on the Licence.	N/A
N/A	The Licensee is required to submit to the Chief Executive Officer (CEO) an Annual Audit Compliance Report on July 30 each year. The Licensee is also required to notify the CEO in the event of a failure or malfunction of pollution control equipment or a breach of a limit specified in the Licence.	General provisions of the <i>Environmental Protection Act 1986</i> .



6 Emissions and discharges risk assessment framework

Note: These matrix are taken from the DEC Officer's Guide to Emissions and Discharges Risk Assessment (2006).

Table 3: Measures of Significance of Emissions

Emissions as a percentage of the relevant emission or ambient standard		Worst Case Operating Conditions (95 th Percentile)			
		>100%	50 – 100%	20 – 50%	<20%*
Normal Operating Conditions (50 th Percentile)	>100%	5	N/A	N/A	N/A
	50 – 100%	4	3	N/A	N/A
	20 – 50%	4	3	2	N/A
	<20%*	3	3	2	1

*For reliable technology, this figure could increase to 30%

Table 4: Socio-Political Context of Each Regulated Emission

		Relative proximity of the interested party with regards to the emission				
		Immediately Adjacent	Adjacent	Nearby	Distant	Isolated
Level of Community Interest or Concern*	5	High	High	Medium High	Medium	Low
	4	High	High	Medium High	Medium	Low
	3	Medium High	Medium High	Medium	Low	No
	2	Low	Low	Low	Low	No
	1	No	No	No	No	No

Note: These examples are not exclusive and professional judgement is needed to evaluate each specific case

*This is determined by DER using the *Officer's Guide to Emissions and Discharges Risk Assessment* (2006).

Table 5: Emissions Risk Reduction Matrix

		Significance of Emissions				
		5	4	3	2	1
Socio-Political Context	High	A	A	B	C	D
	Medium High	A	A	B	C	D
	Medium	A	B	B	D	E
	Low	A	B	C	D	E
	No	B	C	D	E	E

PRIORITY MATRIX ACTION DESCRIPTORS

A = Do not allow (fix)

B = licence condition (setting limits + EMPs - short timeframes)(setting targets optional)

C = licence condition (setting targets + EMPs - longer timeframes)

D= EIPs, other management mechanisms/licence conditions (monitoring/reporting)/other regulatory tools

E = No regulation, other management mechanisms