



LICENCE NUMBER: L8470/2010/2  
FILE NUMBER: 2010/005710  
APPLICATION DATE: 15 JULY 2013  
EXPIRY DATE: 26 SEPTEMBER 2016

## PREMISES DETAILS

### LICENSEE AND OCCUPIER

Karratha Environmental Crushing Pty Ltd  
Unit 16 Lakeside Corporate Centre  
24 Parkland Road  
OSBORNE PARK WA 6017

ACN: 140 078 431

### PREMISES

Karratha Environmental Crushing site  
Lot 4599 on Plan 192297  
Crown Lease GE J-287979  
GAP RIDGE WA 6714

### PRESCRIBED PREMISES CATEGORY

Table 1: Prescribed Premises Category from Schedule 1 of the Environmental Protection Regulations 1987.

Category number*	Category Description*	Category Production or Design Capacity*	Nominated Premises Throughput#	Premises Capacity#
13	Crushing of building material	Not more than 50 000 tonnes per year	50 000 tonnes per year	140 000 tonnes per year

\* From Schedule 4 of the Environmental Protection Regulations 1987

# From application

This Environmental Assessment Report (EAR) has been drafted for the purposes of detailing information on the management and mitigation of emissions and discharges from the prescribed premises. The objective of the EAR is to provide a risk assessment of emissions and discharges, and information on the management of other activities occurring onsite which are not related to the control of emissions and discharges from the prescribed premises activity. This does not restrict the Department of Environment Regulation (DER) to assessing only those emissions and discharges generated from the activities that cause the premises to become prescribed premises.

### Basis of Assessment

The Karratha Environmental Crushing site has been assessed as "prescribed premises" category number 13, under Schedule 1 of the Environmental Protection Regulations 1987.

*"Crushing of building material: premises on which waste building or demolition material (for example, bricks, stones or concrete) is crushed or cleaned".*

Karratha Environmental Crushing Pty Ltd (KEC) operates a crushing and screening plant and processes used building material for reuse. The site has the capacity to process up to 140 000 tonnes of material, however, the site has only been assessed for up to 50 000 tonnes per year.



During 2012 the site processed a total of 38 200 tonnes of waste material, well within the production limit of the licence.

## 1.0 BACKGROUND

### 1.1 GENERAL COMPANY DESCRIPTION

KEC was established in 2009 as a subsidiary to Karratha Earthmoving and Sand Supplies.

### 1.2 LOCATION OF PREMISES

The plant is located on Lot 4599 On Plan 192297 (Crown Lease GE J-287979), Dampier Road at Gap Ridge (Figure 1). The works will be undertaken on 37 500 square metres of land which was previously used for other purposes. The closest residential area is the town of Karratha approximately 3 kilometres (km) to the east (Figure 2) and the nearest water body is the Indian Ocean approximately 2 km north-east of the premises. There are no Public Drinking Water Source Areas (PDWSA) within a 20 km radius of the premises (Department of Water).



Figure 1: Location of Lot 4599 on Plan 192297.



Figure 2: Location of Karratha to the proposed site.

### 1.3 PROCESS DESCRIPTION

KEC undertakes crushing and recycling of concrete and building material from the Karratha area. The main focus of the activity is to import the concrete waste from surrounding areas and companies, process the material and use it for the construction of roads and common fill applications.

The material is delivered on site via a third party transporter (Toxfree) and from individuals delivering directly to the site. The roads in and out of the site area are gravel.

The main input to the process is waste concrete. The concrete is broken up using an excavator with a jaw pulveriser, which separates the concrete from the reinforcing bar. The steel is sent to a metal recycling site whilst the concrete is fed through a jaw crusher, screening plant and cone crusher and broken down into smaller sections and graded accordingly to use. The crushed material varies in size as a result of made to order specifications, the demand for the products and available screen sizes of the screening plant.



The plant can produce the following sizes of material:

- 7mm recycled sand;
- 7mm – 14mm aggregate;
- 150mm filter rock;
- 19mm roadbase; and
- 35mm basecourse.

The equipment used for the processing of the product include:

- 2007 powerscreen triple deck screening plant;
- 2008 metrotrac jaw crusher;
- 2008 cone crusher; and
- 2009 finlay stacker.

The crushing and screening equipment is diesel powered, on tracks for mobility and is fitted with factory approved dust suppression equipment including covers and fine mist dust suppressing sprays. The equipment is manufactured in Europe and meets all Australian and European design requirements for use in crushing and screening of these products.

The site is in the process of improving operations at the site to ensure compliance with DER new "Guidelines for managing asbestos at construction and demolition waste recycling facilities" (Asbestos guidelines). The Asbestos guideline was produced to provide guidance and measures that can be used by crushing and demolition (C&D) recycling facilities to manage the risk of asbestos contamination of feedstock and products, and to reduce risks to the community.

## **1.4 REGULATORY CONTEXT**

### **1.4.1 Part IV Environmental Protection Act 1986, Environmental Impact Assessment**

The Karratha Environmental Crushing site has not been referred to the Environmental Protection Authority.

### **1.4.2 Part V Environmental Protection Act 1986, Environmental Management**

The KEC site has been assessed as a "prescribed premises" under the Environmental Protection Regulations 1987. Works Approval W4683/2010/1 was issued in June 2010 for the construction of this facility and a compliance certificate was issued on the 28 July 2010. The licence was issued for the site in September 2010 for a period of three years.

The licence was amended in January 2013 to include conditions relating to improvements at the site for compliance with the DER new Asbestos guidelines. Three conditions were added to the licence relating to the development of the EIP to bring the site into compliance with the guideline.

The EIP has been completed and approved by DER in May 2013 and the conditions from the January amendment have been replaced with a condition relating to the implementation of the DER approved EIP. The licence expires on 26 September 2013 and the licence is being reissued with only the above changes.

#### **Environmental Protection Regulations and other DER administered Acts**

- *Environmental Protection Act 1986*;
- Environmental Protection Regulations 1987;
- Environmental Protection (Noise) Regulations 1997; and
- Environmental Protection (Unauthorised Discharges) Regulations 2004.



**1.4.3 Other Decision Making Authorities' Legislation which applies**

- *Occupational Health and Safety Act 1984*; and
- *Occupational Health and Safety Regulations 1996*.

**1.4.5 Local Government Authority**

The premises is located within the Shire of Roebourne.

## **2.0 STAKEHOLDER AND COMMUNITY CONSULTATION**

### **SUBMISSIONS RECEIVED DURING 21 DAY PUBLIC COMMENT PERIOD**

The application for licence details for this facility were advertised in *The West Australian* newspaper on 12 August 2013 as a means of advising stakeholders and to seek public comments. No submissions were received.

## **3.0 EMISSIONS AND DISCHARGES RISK ASSESSMENT**

DER considers that conditions should focus on regulating emissions and discharges of significance. Where appropriate, emissions and discharges which are not significant should be managed and regulated by other legislative tools or management mechanisms.

The following section assesses the environmental risk of potential emissions from the Karratha Environmental Crushing site. In order to determine the site's appropriate environmental regulation, an emissions and discharges risk assessment was conducted of the facility using the environmental risk matrix outlined in Appendix A. The results of this are summarized in Table 2.



# ENVIRONMENTAL ASSESSMENT REPORT

**Table 2: Risk assessment and regulatory response summary table.**

Risk factor	Significance of emissions	Socio-Political Context of Each Regulated Emission	Risk Assessment	DER Regulation (EP Act - Part V)	EAR Reference	Other management (legislation, tools, agencies)
Air emissions (point source)	<b>Operation – 1</b> There are no significant point source air emission associated with the plant.	No socio-political concern	E- No regulation, other management mechanisms.	LIC – No conditions.	N/A.	General provisions of the <i>Environmental Protection Act 1986</i> .
Dust emissions	<b>Operation – 1</b> Dust is minimised using factory equipped dust suppression equipment on the crushers and screeners.  This includes: <ul style="list-style-type: none"> <li>covers on conveyor belts where necessary; and</li> <li>the use of fine mist dust suppression sprays.</li> </ul> These sprays produce a fine mist to control dust emissions from the machines and is built to Australian Standards.  Unsealed roads are constantly watered using a water truck. The water is from the Water Corporation approved water stand for Karratha Earthmoving and Sand Supplies. Dust suppression product like RAINSTORM is also used on unsealed roads.  During the works process dust is visually monitored to ensure it is at an acceptable level. If the levels are beyond acceptable then operations cease until an acceptable solution is found.  An EIP was approved by DER and relates to bringing the site into compliance with the DER Asbestos Guidelines.	No socio-political concern	E – No regulation, other management mechanisms.	LIC –conditions relating to the management of dust emissions.  Condition relating to the compliance with the EIP.	N/A	General Provisions of the <i>Environmental Protection Act 1986</i> .  Environmental Protection (Unauthorised Discharges) Regulations 2004.  Karratha Environment Crushing – Environmental Improvement Plant (29 April 2013).
Odour emissions	<b>Operation - 1</b> No significant odour emissions are associated with the operation of this facility.	No socio-political concern.	E – No regulation, other management mechanisms.	LIC – No condition.	N/A.	General provisions of the <i>Environmental Protection Act 1986</i> .



# ENVIRONMENTAL ASSESSMENT REPORT

Risk factor	Significance of emissions	Socio-Political Context of Each Regulated Emission	Risk Assessment	DER Regulation (EP Act - Part V)	EAR Reference	Other management (legislation, tools, agencies)
Noise emissions	<p><b>Operation – 1</b></p> <p>All machines have been built to Australian Standards and therefore are limited to the amount of noise that is generated. All operators around the heavy equipment are required to adhere to Personal Protective Equipment requirements.</p> <p>During the works process noise is monitored by the property owner to ensure it is at an acceptable level. If the levels are beyond acceptable then operations cease until an acceptable solution is found. If required a decibel meter is used.</p> <p>KEC have committed to meeting the Environmental Protection (Noise) Regulations 1997.</p>	<p>No socio-political concern.</p> <p>The operation is being undertaken for the land owner within the property and he will be over seeing the works.</p>	E – No regulation, other management mechanisms.	LIC – No condition.	N/A.	<p>General Provision of the <i>Environmental Protection Act 1986</i>.</p> <p>Environmental Protection (Noise) Regulations 1997.</p>
Light emissions	<p><b>Operation - 1</b></p> <p>Hours of operation are from 7am to 5pm Monday to Saturday.</p>	No socio-political concern.	E – No regulation, other management mechanisms.	LIC – No condition.	N/A.	General provisions of the <i>Environmental Protection Act 1986</i> .
Discharges to water	<p><b>Operation – 1</b></p> <p>There are no discharges to water during the operation of the crushing and screening equipment.</p> <p>The water table is approximately 5m below the surface of the ground and is not disturbed during the operation of this facility.</p>	No socio-political concern.	E – No regulation, other management mechanisms.	LIC – conditions relating to storm water management.	N/A.	<p>General provisions of the <i>Environmental Protection Act 1986</i>.</p> <p>Environmental Protection (Unauthorised Discharges) Regulations 2004.</p>
Discharges to land	<p><b>Operation – 1</b></p> <p>Discharges to land are minimal and are managed by the following:</p> <ul style="list-style-type: none"> <li>the block is contoured to direct all stormwater runoff into a settling pond; and</li> <li>the pond is located on the south western corner of the block.</li> </ul> <p>Water in the settling pond either evaporates or is allowed</p>	No socio-political concern.	E – No regulation, other management mechanisms.	LIC - conditions relating to storm water management and dust suppression water quality.	N/A.	<p>General Provisions of the <i>Environmental Protection Act 1986</i>.</p> <p>Environmental Protection (Unauthorised Discharges) Regulations 2004.</p>



# ENVIRONMENTAL ASSESSMENT REPORT

Risk factor	Significance of emissions	Socio-Political Context of Each Regulated Emission	Risk Assessment	DER Regulation (EP Act - Part V)	EAR Reference	Other management (legislation, tools, agencies)
	to settled and then reuse for dust suppression. Once the pond has evaporated the settled material is put back into the process. The settling pond has an earth bund surround to prevent water escaping outside the area.					
Solid/ liquid wastes	<p><b>Operation – 1</b></p> <p>All solid waste is placed in a skip bin and removed from the site by ToxFree once it is full.</p> <p>An EIP was approved by DER and relates to bringing the site into compliance with the DER Asbestos Guidelines.</p>	No socio-political concern.	E – No regulation, other management mechanisms.	LIC – No conditions.	N/A.	<p>Environmental Protection (Unauthorised Discharges) Regulations 2004.</p> <p>Environmental Protection (Controlled Waste) Regulations 2004.</p> <p>General Provisions of the <i>Environmental Protection Act 1986</i>.</p> <p>Karratha Environment Crushing – Environmental Improvement Plant (29 April 2013).</p>
Hydrocarbon/ Chemical storage	<p><b>Operation – N/A</b></p> <p>There are no hydrocarbons or chemical stored on site. All machines are fuelled via a service truck which visits the site daily. All waste oil and filters are removed immediately after servicing. The servicing area is bunded and all care is taken to ensure there are no hydrocarbon spills. KEC has the required spill kits and tools available on site in case of spills.</p>	No socio-political concern.	E – No regulation, other management mechanisms.	LIC – No condition.	N/A. –	<p>General provisions of the <i>Environmental Protection Act 1986</i>.</p> <p>Environmental Protection (Unauthorised Discharges) Regulations 2004.</p>





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## **4.0 GENERAL SUMMARY AND COMMENTS**

KEC operates a crushing and screening plant just outside Karratha which processes used building material for reuse. The site processes up to 50 000 tonnes of C&D material per year. During 2012 the site processed a total of 38 200 tonnes of waste material.

As shown in Table 2, emissions and discharges relating to the operation of the crushing and screening equipment are a low risk and should not result in significant impacts to the environment.

The project is also subject to the general provisions of the *Environmental Protection Act 1986* relating to the causing and reporting of pollution and will be subject to inspections by DER officers.

## **OFFICER UPDATING REPORT**

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September 2013

## **ENDORSEMENT**

Alana Kidd

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Position: Regional Leader – Industry Regulation  
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September 2013



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Report prepared: September 2010

Report amended: 20 December 2012 (Dale Stanton)

## **ENDORSEMENT**

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## APPENDIX A: EMISSIONS AND DISCHARGES RISK ASSESSMENT MATRIX

**Table 3: Measures of Significance of Emissions**

Emissions as a percentage of the relevant emission or ambient standard		Worst Case Operating Conditions (95 <sup>th</sup> Percentile)			
		>100%	50 – 100%	20 – 50%	<20%*
Normal Operating Conditions (50 <sup>th</sup> 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 the DER using the DER "Officer's Guide to Emissions and Discharges Risk Assessment" May 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