



Amendment Notice 1

Licence Number L6533/1993/11

Licence Holder BGC (Australia) Pty Ltd

ACN 005 736 005

File Number DER2018/000158

Premises BGC Hazelmere Industrial Complex
Corner Bushmead Road and Stirling Crescent
HAZELMERE WA 6055

Legal description -
Lot 4 on Diagram 55932
Certificate of Title Volume 1978 Folio 979
Lot 800 on Deposited Plan 408214
Certificate of Title Volume 2924 Folio 462
Lot 202 on Deposited Plan 39720
Certificate of Title Volume 2573 Folio 193
Lot 76 on Plan 4539
Certificate of Title Volume 1674 Folio 164

Date of Amendment 6 June 2018

Amendment

The Chief Executive Officer (CEO) of the Department of Water and Environmental Regulation (DWER) has amended the above Licence in accordance with section 59 of the *Environmental Protection Act 1986* (EP Act) as set out in this Amendment Notice. This Amendment Notice constitutes written notice of the amendment in accordance with section 59B(9) of the EP Act.

Date signed: 5 June 2018

Caron Goodbourn
Manager Licensing (Process Industries)
Regulatory Services (Environment)

Delegated Officer
under section 20 of the *Environmental Protection Act 1986*
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Definitions and interpretation

Definitions

In this Amendment Notice, the terms in Table 1 have the meanings defined.

Table 1: Definitions

Term	Definition
Amendment Notice	refers to this document
Category/ Categories/ Cat.	categories of Prescribed Premises as set out in Schedule 1 of the EP Regulations
Delegated Officer	an officer under section 20 of the EP Act
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V, Division 3 of the EP Act.
DWER	Department of Water and Environmental Regulation
Existing Licence	The Licence L6533/2017/1 issued under Part V, Division 3 of the EP Act and in force prior to the commencement of, and during this Amendment
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
EP Regulations	<i>Environmental Protection Regulations 1987 (WA)</i>
Licence Holder	BGC (Australia) Pty Ltd
Noise Regulations	<i>Environmental Protection (Noise) Regulations 1997 (WA)</i>
Prescribed Premises	has the same meaning given to that term under the EP Act.
Premises	refers to the premises to which this Amendment Notice applies, as specified at the front of this Amendment Notice.
Processed RAP	means RAP which has been crushed and/or screened to size for recycling into new asphalt.
RAP	Reclaimed Asphalt Pavement
Recycled asphalt materials	means processed RAP and processed excess or unused asphalt produced within the Premises inclusive of excess asphalt returned from site.

Amendment Notice

This amendment is made pursuant to section 59 of the *Environmental Protection Act 1986* (EP Act) to amend the Licence issued under the EP Act for a prescribed premises as set out below.

This notice is limited only to an amendment for the prescribed premises Categories 35 and 61A. No changes to the aspects of the original Licence relating to Category 77 have been requested by the Licence Holder.

The following guidance statements have informed the decision made on this amendment

- *Guidance Statement: Setting Conditions (October 2015)*
- *Guidance Statement: Environmental Siting (November 2016)*
- *Guidance Statement: Decision Making (February 2017)*
- *Guidance Statement: Risk Assessment (February 2017)*

Amendment description

BGC (Australia) Pty Ltd (the Licence Holder) submitted an application for an amendment to their Licence (L6533/1993/11) on 23 March 2018.

The Licence Holder (BGC) is seeking approval to receive, store, process and utilise reclaimed asphalt pavement (RAP) in asphalt production in the two existing asphalt manufacturing plants operating at their Premises in Hazelmere (BGC Hazelmere Industrial Complex).

BGC proposes to utilise up to a total of 20,000 tonnes over 18 months or 13,500 tonnes per annual period of processed recycled asphalt materials (including RAP) in the two existing asphalt plants, to supply asphalt for the Northlink 2 project. With increased requirements for the inclusion of RAP in supply tenders for asphalt, BGC proposes to have an ongoing capacity to utilise up to 20,000 tonnes per annual period. The incorporation of RAP in asphalt production will not change the existing approved production throughput of up to 1,345,000 tonnes per annum, being the combined total output from the two asphalt plants.

RAP (unprocessed) will be intermittently delivered to the Premises by truck, as required, and stored in three sided bays in accordance with Main Roads WA Specifications 511: Materials for Bituminous Treatments. Deliveries will occur on weekdays during daytime. The estimated capacity of the storage bays is 1,200m³ for unprocessed RAP and 2,200m³ for processed RAP. Due to the large particle size and mass of RAP material being unloaded and subsequently moved by front end loader for processing, minimal fugitive dust emissions are expected from these activities. Water sprinkler systems are installed in all storage bays for spray application to control dust emissions as required. In addition, BGC propose to unload unused asphalt mix returned from site to BGC Hazelmere for reprocessing, and recycle unused/excess asphalt product from the hot mix storage silos for re-use in asphalt manufacture.

As per the Main Roads WA Specifications 511: Materials for Bituminous Treatments requirements, BGC will only accept and process RAP that does not contain:

- a) granular pavement materials, clay, soil or organic matter;
- b) bricks, concrete, glass or building materials; or
- c) tar-based products, geotextile fabrics, raised pavement markers or surface treatment such as high friction surfacing.

RAP and other recycled asphalt material will be periodically moved from storage areas by front end loader and transferred into a mobile crushing and screening plant (RM 70GO! 2.0 Rubble Master or a make and model with the equivalent manufacturer's specifications for noise emissions and dust minimisation controls) for processing. Fugitive dust emissions will be

mitigated by minimising the distance between the loader bucket and hopper. RAP/recycled asphalt materials will be crushed into finer graded materials and subsequently screened to remove any oversized particles and separate crushed material into fine and course grade categories (primarily producing 14mm or 20mm grade aggregate). To minimise dust emissions, dust suppression covers will be fitted to the conveyor feed and discharge points. Crushing and screening will be undertaken on an intermittent, as needs basis on weekdays only, during daytime and for up to periods of approximately one week at a time.

The proposed crushing and screening plant is mobile and intended to be temporarily located on site (as shown in the additional location site plans for Asphalt Plants 1 & 2 to be included in Schedule 1 of the Licence) and subsequently re-located off-site until required again. Noise generated from the operation of this plant is expected to be less than that from the existing crushing and screening plant (used in adjacent block making activity). To mitigate noise emissions, BGC propose to ensure that the two crushing and screening plants are not operated at the same time.

Screened RAP/recycled asphalt materials will be stored in bays allocated for storage of processed RAP and in accordance with the Main Roads WA Specifications 511: Materials for Bituminous Treatments requirements. RAP/recycled asphalt materials will be fed into the asphalt mixing process for both the Almix ALB2500S/160 batch mix and the Almix TP88UF drum mix plant via covered conveyor from dedicated cold feed bins to the pug mill or drum (respectively), where it will mix with hot aggregate and bitumen. i.e. Processed RAP is not directly heated by the burners, therefore minimising potential emissions of volatile organic compounds (VOC's) and associated odour.

As part of this amendment DWER has not reassessed the acceptability or impacts of existing emissions and discharges from the Premises or re-visited any existing emission control levels.

Amendment history

Table 2 provides the amendment history for L6533/1993/11.

Table 2: Licence amendments

Instrument	Issued	Amendment	Prescribed Premises Category
L6533/1993/11	06/06/2018	Amendment Notice 1 – Licence Holder initiated to allow for receipt, storage, processing and re-use of RAP in asphalt manufacture (including allowance for re-use of site return and excess on-site produced asphalt	Category 35: Asphalt manufacturing; Category 61A: Solid waste facility; Category 77: Concrete batching or cement products manufacturing.
L6533/1993/11	13/12/2017	Licence amendment - Licence Holder initiated for: changes to the Premises boundary to incorporate concrete batching and cement product manufacturing activities occurring on adjacent land parcels, into the licenced Premises boundary; and installing, commissioning and operating two additional transportable asphalt manufacturing plants and upgardes to crushing and screening plant.	Category 35: Asphalt manufacturing; Category 61A: Solid waste facility; Category 77: Concrete batching or cement products manufacturing.
L6533/1993/11	30/05/2017	Licence amendment - Licence Holder initiated for increased production limit for the fixed asphalt plant from 100,000 tonnes per annum to 250,000 tonnes per annum.	Category 35: Asphalt manufacturing
L6533/1993/11	31/03/2016	Licence amendment - Licence Holder initiated for: construction and operation of a new fixed asphalt manufacturing plant to replace the previous fixed plant on the premises; replacement of baghouse dust collector; enclosure of aggregate stockpile bins; an operation of a temporary mobile asphalt plant for the duration of construction of the fixed asphalt plant. ¹	Category 35: Asphalt manufacturing
L6533/1993/11	22/01/2016	Licence reissue	Category 35: Asphalt manufacturing
L6533/1993/10	19/05/2014	Licence amended to REFIRE format	Category 35: Asphalt manufacturing

Note 1: Licence Holder advised DWER on 23 February 2018 that only one additional asphalt plant has been installed. The second additional plant originally proposed for installation, is no longer required.

Location and receptors

Tables 3 and 4 below list the relevant sensitive land uses in the vicinity of the Prescribed Premises which may be receptors relevant to the proposed amendment.

Table 3: Receptors and distance from activity boundary

Residential and sensitive premises	Distance from Prescribed Premises
Residential Premises	Several residences are located within 1000m of the Premises boundary. See Table 6 for details.
Industrial Receptors (Premises not owned/ operated by BGC)	<p>North:</p> <ul style="list-style-type: none"> Toll Ipec and Coco-Cola Amatil Distribution Centre: Less than 50m from the Premises boundary Industrial Premises including Linfox, B&J Catalano: Between 200m-300m from the Premises boundary <p>South:</p> <ul style="list-style-type: none"> Eastern Metropolitan Regional Council: Adjacent parcel of land Talloman: Approximately 100 metres from Premises boundary Industrial Premises (including Centurion Transport, Barmingo, Fulton Hogan, G&V Roberts): Greater than 500m from the Premises boundary <p>East:</p> <ul style="list-style-type: none"> Industrial Premises (including BTP, Regal Transport)- Between 200m-300m <p>West: CTI Freightlines: Approximately 200m from the Premises boundary</p>

Table 4: Distances to Residential Receptors from the Premises boundary

Lot number	Street	Status	Current zoning	Distance from Premises boundary
300	Vale Road	Occupied	Rural Residential	727m
121	Vale Road	Occupied	Rural Residential	533m
120	Lakes Road	Occupied	Rural Residential	532m
24	Stirling Crescent	Occupied	Special Use, Local Reserve- Local Road	510m
95	Lakes Road	Occupied	Rural Residential	634m
405	Central Avenue	Occupied	Rural Residential, Industrial Development	620m
25	Stirling Crescent	Occupied	Special Use, Industrial Development	496m
23	Stirling Crescent	Occupied	Special Use, Regional Reserve Parks and Recreation	590m
118, 119 and 817	Lakes Road	Unoccupied	Rural Residential	--

Note: Occupancy status information is as provided in the Application and has not been independently verified

Table 5 below lists the relevant environmental receptors in the vicinity of the Prescribed Premises which may be receptors relevant to the proposed amendment.

Table 5: Environmental receptors and distance from activity boundary

Environmental receptors	Distance from Prescribed Premises
Helena River (Regional Reserve)	1.1 km North of Premises
Conservation Category Wetland (Helena River Foreshore)	850m
Bush Forever Site 481	750m
Bush Forever Site 213	950m

Risk assessment

Table 6 below describes the Risk Events associated with the amendment consistent with the *Guidance Statement: Risk Assessments*. The table identifies whether the emissions present a material risk to public health or the environment, requiring regulatory controls.

Table 6: Risk assessment for proposed amendments during operation

Risk Event						Consequence rating	Likelihood rating	Risk	Reasoning
Source/Activities		Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts				
Cat 35 Asphalt Manufacturing	Incorporation of RAP/ recycled asphalt materials as portion of aggregate material used in asphalt manufacturing	Odour (Fugitive)	Closest residential Premises located 530m South of the Premises boundary. Multiple occupied residences located within 1 km of the Premises boundary. Multiple commercial/ industrial receptors located within 500m of the Premises boundary.	Air/Wind dispersion	Health and amenity impacts	Minor	Unlikely	Medium	The Licence Review and Existing Licence issued in December 2017 assessed both fugitive odour risk and emissions to air risk associated with asphalt manufacturing as high risk and set regulatory conditions accordingly in the Licence to manage and mitigate these risks. Incorporation of RAP at 10-20% of the asphalt mix has the potential to add to VOC emissions from the stack and the input point for introducing RAP into asphalt plant 2 (and therefore fugitive odour emissions). However, the VOC levels and potential impact on odour emissions are considered to be adequately regulated by Conditions 16 -25 and the respective infrastructure and equipment requirements for the two asphalt plants (Tables 3 & 12).
		Emissions to air – particulates and VOC's associated with the RAP/recycled asphalt materials fraction				Minor	Possible	Medium	

Risk Event						Consequence rating	Likelihood rating	Risk	Reasoning
Source/Activities	Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts	Source/Activities				
Cat 61 Solid Waste Facility	<i>Receipt, processing, handling and storage of RAP, including crushing and screening</i>	Dust (Fugitive)	Closest residential Premises located 530m South of the Premises boundary. Multiple occupied residences located within 1 km of the Premises boundary.	<i>Air/Wind dispersion</i>	<i>Amenity</i>	Slight	Possible	Low	<p>Main Roads WA Specifications 511: Materials for Bituminous Treatments RAP acceptance and processing conditions apply.</p> <p>Large particle size and mass of raw materials received and transferred for processing minimises potential fugitive emissions.</p> <p>Existing sprinkler system operated within raw/unprocessed material bays.</p> <p>Processed RAP stockpiles to be covered (BGC Hazelmere RAP Management Plan).</p> <p>Dust suppression covers fitted to conveyors and all discharge point/s on crushing and screening plant.</p>
		Noise	Multiple commercial/ industrial receptors located within 500m of the Premises boundary.			Slight	Unlikely	Low	<p>The crushing and screening plant will be operated periodically and at different times to operation of the existing crushing and screening plant associated with block making.</p> <p>No complaints to date about noise. The Noise Regulations apply.</p>

Decision

The Delegated Officer has granted the Licence Amendment Application subject to conditions.

The conditions to be amended or attached to the Licence, reflect the details of the Application relating to the periodic location and use of additional crushing and screening plant on site to process RAP and recycled asphalt materials for incorporation in aggregate inputs for asphalt manufacturing in the two existing plants. These include relevant amended conditions for the Category 61A Solid Waste Facility in relation to the acceptance, storage and handling of RAP.

Licence Holder's comments

The Licence Holder was provided with the draft Amendment Notice on 31 May 2018. A comment received from the Licence Holder on Friday 1 June 2018 has been considered by the Delegated Officer. The Licence Holder requested that DWER waive the consultation period in the reply correspondence received on 1 June 2018.

Amendment

1. The Licence is amended by the addition and/or correction of the following Definitions in Table 1.

Table 1: Definitions

Term	Definition
Noise Regulations	<i>Environmental Protection (Noise) Regulations 1997 (WA)</i>
Processed RAP	means RAP which has been crushed and/or screened to size for recycling into new asphalt production.
RAP	Reclaimed Asphalt Pavement which are generally removed from road basins, parking lots or driveways
Recycled asphalt materials	means processed RAP and processed excess or unused asphalt produced within the Premises inclusive of excess asphalt returned from site.

2. Condition 2 of the Licence is amended by the insertion of the following red text within Table 3: Infrastructure and equipment operational requirements, shown in underline below:

2. The Licence holder must ensure that the infrastructure and equipment specified in column 1 of Table 3 is maintained in good working order and operated in accordance with the requirements specified in column 2 of Table 3.

Table 3: Infrastructure and equipment operational requirements

Column 1	Column 2
Site infrastructure and equipment	Operational requirements
Crushing and screening plant (<u>Brown-Lenox Kue Ken Jaw and Symons Cone</u>) and fibre cement flail; <u>Crushing and screening plant (RM 70GO! 2.0 Compact Crushing or equivalent make</u>	<ol style="list-style-type: none">i. Water sprays must be in good working order and activated when dust emissions are likely during operation.ii. All unprocessed recyclable materials and processed material is to be stockpiled in three-sided storage bays, or where the use of such bins is not practicable, in stockpiles on the ground.iii. The Licence Holder must ensure that material stored in stockpiles is covered or damp, or otherwise treated, so as to minimise airborne dust.iv. Must not allow the height of materials in a storage bin or bay to exceed

Column 1	Column 2
Site infrastructure and equipment	Operational requirements
<u>and model) for crushing and screening recycled asphalt material</u>	<p>the height of the bin or bay (including any windshields fitted to it).</p> <p>v. <u>The Licence Holder must ensure that only one of the crushing and screening plants is operational at any one time.</u></p> <p>vi. <u>The Licence Holder must ensure that Processed RAP is stored in accordance with Main Roads WA Specification 511: Materials for Bituminous Treatments.</u></p> <p>vii. <u>The Licence Holder must ensure that the crushing and screening plant used for processing RAP has dust suppression covers fitted to the conveyor feed and crushed material discharge points.</u></p>

3. Condition 3 of the Licence is amended by the insertion of the red text shown in underline below:

- 3.** *The Licence Holder must only accept Waste at the Premises for the purpose of crushing and screening prior to reuse in the concrete products or asphalt manufacturing activities if:*

it is of a type specified in Column 1 of Table 4; and

it meets any specification or quantity limit specified in Column 2 or Column 3 of Table 4.

Table 4: Waste Types acceptance criteria

Column 1	Column 2	Column 3
Material	Specification	Quantity Limit
Solid wastes		
Inert Waste Type 1	<p>Waste containing asbestos or asbestos containing material shall not be accepted.</p> <p>Waste shall only be sourced from BGC's manufacturing facilities.</p> <p>Construction and Demolition Waste shall not be accepted</p>	Not exceeding 30,000 tonnes per annual period
<u>Recycled asphalt materials</u>	<p><u>Excess site asphalt returns shall only be sourced from asphalt manufactured in one or other of the two asphalt plants located within the Premises.</u></p> <p><u>Shall only accept unprocessed RAP that does not contain any of the following materials:</u></p> <ul style="list-style-type: none"> •<u>Granular pavement materials, clay, soil or organic matter;</u> •<u>Bricks, concrete, glass or building materials;</u> <u>or</u> •<u>Tar based products, geotextile fabrics, raised pavement markers or surface treatments such as high friction surfacings.</u> 	<u>Not exceeding 20,000 tonnes per annual period</u>

4. The Licence is amended by the deletion in full of the following Condition 22:

- 22.** ~~The Licence Holder must not use RAP material in the asphalt manufacturing process.~~

5. The Licence is amended by the insertion of the following additional plans to Schedule 1: Maps

Location of Asphalt Plant 1 (Almix ALB 2500S/160) and RAP Processing Area and Storage Layout



Location of Asphalt Plant 2 (Almix TP88UF) and RAP Processing Area and Storage Layout



Appendix 1: Key documents

	Document title	In text ref	Availability
1	BGC (Australia) Pty Ltd – BGC Hazelmere Industrial Complex Licence – L6533/1993/11	L6533/1993/11	Accessed at www.dwer.wa.gov.au
2	L6533 Amendment Application – BGC 23032018	The application	DWER records (A1683738)
3	Email correspondence from Peter Yates, BGC Asphalt and Quarries (12/04/2018 and 13/04/2018) including the following documents: <ul style="list-style-type: none"> BGC Hazelmere RAP Location Map DWER.pdf; and BGC Hazelmere RAP Management Plan.pdf 		DWER records (A1683740 and A1670545)
4	Main Roads WA. Specifications 511: Materials for Bituminous Treatments. 10/4287 Issued 23/05/2017	Main Roads Western Australia. Specifications 511: Materials for Bituminous Treatments	Accessed at www.mainroads.wa.gov.au
5	DER, October 2015. <i>Guidance Statement: Setting conditions</i> . Department of Environment Regulation, Perth.	N/A	Accessed at www.dwer.wa.gov.au
6	DER, November 2016. <i>Guidance Statement: Environmental Siting</i> . Department of Environment Regulation, Perth.		
7	DER, February 2017. <i>Guidance Statement: Decision Making</i> . Department of Environment Regulation, Perth.		
8	DER, February 2017. <i>Guidance Statement: Risk Assessments</i> . Department of Environment Regulation, Perth.		