



Application for Licence Amendment

Part V Division 3 of the *Environmental Protection Act 1986*

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 Legal description – Lot 800 on Plan 408214 Certificate of Title Volume 2924 Folio 462 Lot 4 on Plan 55932 Certificate of Title Volume 1978 Folio 979 Lot 202 on Plan 39720 Certificate of Title Volume 2573 Folio 193 Lot 76 on Plan 4539 Certificate of Title Volume 1674 Folio 164
Date of Report	23/09/2021
Decision	Revised licence granted

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

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1. Decision summary

BGC (Australia) Pty Ltd (Licence holder) holds Licence L6533/1993/11 for the BGC Hazelmere Industrial Complex (Premises) at the corner of Bushmead Road and Stirling Crescent in Hazelmere, Western Australia.

This Amendment Report documents the assessment of potential risks to the environment and public health from the proposed replacement of two existing mobile asphalt plants with one new mobile asphalt plant at the Premises. As a result of this assessment, Revised Licence L6533/1993/11 has been granted.

The Revised Licence issued as a result of this amendment also consolidates amendments granted via an amendment notice issued on 6 June 2018 and supersedes the existing Licence previously granted in relation to the Premises. The Revised Licence has been granted in a new format with existing conditions being transferred, but not reassessed, to the new format.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this Amendment Report, the Delegated Officer has considered and given due regard to the Department of Water and Environmental Regulation's Regulatory Framework and relevant policy documents which are available at <https://dwer.wa.gov.au/regulatory-documents>.

2.2 Amendment summary and Scope of assessment

On 18 March 2021, the Licence Holder applied to amend Licence L6533/1993/11 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The licence holder requested the following amendments:

- removal of the mobile asphalt plants Astec T-400 and Almix TP88UF from the licence; and
- addition of a Ciber iNOVA 2000 mobile asphalt plant to the licence,
- allowance within the licence to locate the Ciber iNOVA 2000 mobile asphalt plant to and relocate it from the Premises and to operate it within the Premises.

The Licence Holder also operates an existing fixed asphalt plant at the premises, and states that it will only operate either the fixed plant or the proposed Ciber iNOVA 2000 mobile plant at any one time.

The Licence Holder stated that there would be no change in the production capacity of the Premises. The existing fixed asphalt plant has a production capacity of 200 tph and the Ciber iNOVA 2000 has a design capacity of 200 tph. The maximum production capacity is therefore 200 tph or theoretically 1,752,000 tonnes per annum (assumes no downtime, 24/7 operation).

Based upon the above, the scope of the assessment is the risk of emissions and discharges from the new mobile asphalt plant, including any potential changes to the existing risk profile for the holistic premises.

2.3 Consolidation of Licence

As part of this amendment package the Delegated Officer consolidated the licence by incorporating changes made under the Amendment Notice as summarised in Table 1.

Table 1: Licences consolidated in this amendment

Instrument	Issued	Summary of approval
L6533/1993/11	19/05/2014	Revised Licence issued in REFIRE format
L6533/1993/11	29/04/2016	Notice of Amendment of Licence Expiry Dates, extending Licence duration to 30 January 2028
L6533/1993/11	13/12/2017	Licence amendment to include operation of two mobile plants (Almix TP88UF and Astec Portable T-400 six pack) and a crushing and screening plant.
L6533/1993/11	06/06/2018	Amendment Notice 1 to enable using Reclaimed Asphalt Pavement (RAP) within the asphalt manufacturing process.

The obligations of the Licence Holder have not changed in consolidating the licence. The department has not undertaken any additional risk assessment of the Premises related to the previous Amendment Notice.

In consolidating the licence, the CEO has:

- updated the format and appearance of the Licence;
- *deleted the redundant AACR form set out in schedule 1 of the previous licence and advise the Licensee to obtain the form from the department's website;*
- *revised licence condition's numbers, and removed any redundant conditions and realigned condition numbers for numerical consistency; and*
- *corrected clerical mistakes and unintentional errors.*

The more detailed description of the changes to the licence conditions as they relate to this Revised Licence is detailed in Section 5.1.

3. Risk assessment

The Delegated Officer assesses the risks of emissions from prescribed premises and identifies the potential source, pathway and impact to receptors in accordance with the *Guidance Statement: Risk Assessments* (DER 2017).

To establish a Risk Event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission.

3.1 Emissions, sources, pathways, receptors and controls

3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway as a result of this amendment which have been considered in this Amendment Report are detailed in Table 2 below.

Table 2 also details the proposed control measures the Licence Holder proposes to assist in controlling these emissions, where necessary.

Table 2: Emissions, Sources, Pathways and Licence Holder controls

Emission	Sources	Potential pathways	Proposed controls
Dust	Asphalt manufacturing, raw materials handling	Air/windborne pathway	Storage of raw materials in three sided bins. Raw materials be kept damp (except RAP, as this is kept dry). <i>Note: No change to current practices</i>
Air emissions	Asphalt manufacturing – stack emissions from Ciber iNOVA 2000 plant		Modern process control to minimise blue smoke (temperature control in the drier). Modern burner for the drier to optimise fuel efficiency and reduce waste gases like NOx and CO. All waste gases from the asphalt manufacturing process go through a bag house filter prior to discharge into atmosphere, stack test result shows particulate emissions to be low (average 3.9 mg/m ³), which indicates that the baghouse filter works as designed. Baghouse fitted with broken bag detections system. Operation of either the fixed or mobile asphalt plant at any one time.
Noise	Asphalt manufacturing – noise from the Ciber iNOVA 2000 plant		Only one asphalt plant will be operated at any given time. The Ciber iNOVA 2000 has a lower noise profile than the existing fixed older plant.
Spills and leaks	Asphalt manufacturing – asphalt products, oils, diesel or other chemicals	Seepage to soils and groundwater	Bitumen and asphalt spills require heating to maintain a fluid state. Spills will rapidly solidify at ambient air temperature and there is negligible risk of potential impacts to soil and groundwater. Diesel is stored in self-bunded tanks. Spill kits/clean up material available if spills occur. <i>Note: No change to current practices</i>

3.1.2 Receptors

In accordance with the *Guidance Statement: Risk Assessment* (DER 2017), the Delegated Officer has excluded employees, visitors and contractors of the Licence Holder’s from its assessment. Protection of these parties often involves different exposure risks and prevention strategies, and is provided for under other state legislation.

Table 3 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises (*Guidance Statement: Environmental Siting* (DER 2016)).

Table 3: Sensitive human and environmental receptors and distance from Premises

Human receptors	Distance from Premises
Closest residential receptor	~500m to west south-west of the Premises
Industrial receptors	Directly adjacent to the Premises
Environmental receptors	Distance from Premises
Helena River (Regional Reserve)	~1.1 km North of Premises
Conservation Category Wetland (Helena River Foreshore)	~850m from the Premises
Bush Forever Site 481	~750m from the Premises
Bush Forever Site 213	~950m from the Premises
Groundwater	0.5 – 1.2m below ground level.
Public Drinking Water Source Protection Area	~4.5km from the Premises

3.1.3 Asphalt plant equipment comparison

The delegated officer noted that the wording in the existing licence was complex, however potentially allowed for the operation of the current fixed plant and two mobile plants. It is unlikely this was intended. The existing licence specified a particulate matter emission limit of 50 mg/m³ for each of the three asphalt plants.

The Licence Holder proposes to remove the two existing mobile plants and consolidate to one mobile plant (a Ciber iNOVA 2000) that has an equivalent production capacity as the two mobile plants. The Licence Holder intends to locate the new mobile plant on and off the Premises from time to time and does not intend to operate the new mobile plant simultaneously with the existing fixed plant.

The current theoretical production capacity is 800tph if all three asphalt plants would run at the same time (as stated before this is technically possible under the licence but most likely unrealistic in a practical sense). The amended production capacity will be 200tph (both existing fixed plant and new mobile plant both have a maximum production capacity of 200tph).

The delegated officer also notes that the Licence Holder's proposed change would remove a hypothetical scenario of 3 units running at the same time, or at least result in one mobile unit operating at any given time, compared with two.

The new mobile plant is replacing the two existing mobile plants that did not in reality operate at the same time. Consequently, meaningful change to the air emissions profile is not expected. The new mobile asphalt plant has lower emissions than the two existing mobile plants on the premises due to more modern technology, process and control systems.

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DER 2017) for those emission sources which are proposed to change and takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are incomplete they have not been considered further in the risk assessment.

Where the Licence Holder has proposed mitigation measures/controls (as detailed in Section 3.1), these have been considered when determining the final risk rating. Where the Delegated Officer considers the Licence Holder's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the Licence as regulatory controls.

Additional regulatory controls may be imposed where the Licence Holder's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 4.

The Revised Licence L6533/1993/11 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises.

The conditions in the Revised Licence have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

Table 4. Risk assessment of potential emissions and discharges from the Premises during operation

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
Operation								
Asphalt manufacturing – operating a new mobile asphalt plant unit in place of two existing mobile units	Fugitive Dust	Air/windborne pathway causing impacts to health and amenity	Adjacent Industrial receptors Residences at ~500m	Refer to section 3.1.1	C = Moderate L = Unlikely Medium Risk	Y	No additional conditions	n/a
	Stack emissions				C = Moderate L = Unlikely Medium Risk	Y	No additional conditions	n/a
	Noise				C = Moderate L = Unlikely Medium Risk	Y	No additional conditions	n/a
	Odour				C = Moderate L = Unlikely Medium Risk	Y	No additional conditions	n/a

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guideline: Risk Assessments* (DER 2017).

4. Consultation

Table 5 provides a summary of the consultation undertaken by the Delegated Officer.

Table 5: Consultation

Consultation method	Comments received	Delegated Officer's response
Application referred to City of Swan for comment	Received confirmation from the City of Swan on 12 August 2021 that the Licence Holder has planning approval for the Ciber Inova 2000 plant.	N/A
Draft Revised Licence and draft Amendment Report send to licence holder on DRAFT, for 21 day consultation.	<p>The Licence Holder responded to the draft documents on 8 September 2021 with the following comments:</p> <ol style="list-style-type: none"> 1. Monitoring and reporting of waste accepted and rejected at the Premises seems to double up on the requirement to report under the Waste Avoidance and Resource Recovery Regulations 2008. 2. Discharge point L2 has been replaced by a closed circuit truck wash recycling system and can be removed from the licence 3. Numbering of some conditions may need to be corrected 4. Cat 77 production capacity should be updated to 2,015,000 tonnes per annum 5. Updated maps provided 6. Discharge point L1 is only a single point. The previous licence had several soak wells as part of L1, however it is now believed that these connect underground and are not discharge points but discharge to L3/L4. 	<p>The Delegated Officer has considered the comments and determined:</p> <ol style="list-style-type: none"> 1. Requirements are not directly related to WARR obligations. Monitoring and report of waste acceptance at the premises relates to managing the risk of emissions and discharges and ensure accurate records are maintained relating to the prescribed premises activities. 2. Discharge point L2 has been removed 3. Numbering corrected. 4. Production capacity for Cat. 77 updated. 5. Maps updated 6. Discharge point L1 now a single point on the map.

5. Decision

Based on the assessment in this Amendment Report, the Delegated Officer has determined that a Revised Licence will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

The Delegated Officer considered to update the licence to the latest template and remove any redundant conditions from the licence. These changes have been summarised in Paragraph 5.1.

The Delegated Officer considered that:

- The site has two existing mobile plants that will be replaced by one new mobile plant with more modern technology, process and controls systems;

- The existing fixed plant will not operate while the mobile plant is operating, which will be a condition of the amended licence;
- The air emissions profile is expected to be the same or improved due to the more modern mobile plant.

A summary of amendments is included in Table 6, including administrative updates. In general, the Delegated Officer determined that applicant controls were appropriate and will include requirements that prevent air emissions from the fixed plant and mobile plant at the same time. The Licence Holder will also have the ability to move the mobile plant on and off the site at its discretion.

5.1 Summary of amendments

Table 6 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the Revised Licence as part of the amendment process.

Table 6: Summary of licence amendments

Old Condition number	New Condition number	Proposed amendments
Definitions	Definitions	Updated definitions
1	1	Authorised Emissions table updated to reflect the requested changes
2	2	Infrastructure and equipment table updated to reflect the requested changes
-	3	New Condition 3 has been added to the licence to allow the removal and relocation of the Ciber iNOVA 2000 asphalt plant from and to the Premises.
16-19	-	Conditions removed. They relate to an Odour Field Assessment Strategy with a due date in the past and was completed prior to February 2018.
20	17	Table 6 updated to reflect the requested changes.
-	18	New condition inserted stated that emissions can only be emitted from either the fixed or the mobile asphalt plant at a time.
21	19	Table 7 update to reflect the requested changes. Including removal of note 2.
22	-	Removed condition (previous amendment)
23	20	Table 8 updated to reflect the requested changes. Added a note to the testing for the Ciber iNOVA 2000 asphalt plant that if stack testing of this plant occurs within a different premises within Western Australia that the results from that test may be submitted for the purposes of this condition. The CEO will then accept that test as if it was conducted at this premises. Compliance with the methods and testing for the correct parameters is still required.
27	24	Note 1 to Table 10 removed as it related to the installation of an oil water separator which has been installed.
28	24	Table 11 – changed the parameter Total Petroleum Hydrocarbons to Total Recoverable Hydrocarbons, in line with current laboratory analysis methods. Changed heading of first column to Monitoring Point Reference.
29	25	Added “(except pH)” to this condition as pH is monitored in the field

Old Condition number	New Condition number	Proposed amendments
		normally.
30-31	26	New Annual Environmental Report condition added to replace previous conditions.
32	27	Removed the reference to condition 38 (as this is also removed).
35	30	Replaced AACR condition with a new ACCR worded condition.
37-48		Conditions removed as they related to previous authorised works and specified actions relating to these works. These works related to the previous mobile asphalt plants which have now been removed.
Schedule 2		Table updated to reflect the requested changes of the infrastructure. New infrastructure table removed.
Figures 1-4		Updated to reflect the changes of infrastructure.

References

1. Department of Environment Regulation (DER) 2016, *Guideline: Environmental Siting*, Perth, Western Australia.
2. DER 2017, *Guideline: Risk Assessments*, Perth, Western Australia.
3. DER 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.