Government of Western Australia
Department of Water and Environmental Regulation

Amendment Notice 1

Licence Number	L9084/2017/1
Licence Holder	Bituminous Products Pty Ltd
ACN	106 887 094
File Number:	DER2017/001403
Premises	Bituminous Products 16 Ocean Street KWINANA BEACH WA 6167 Part Lot 419 on Plan 3837 Certificate of Title Volume 2218 Folio 511
Date of Amendment	12/01/2018

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: 12 January 2018

Paul Byrnes
Manager – Licensing (Process Industries)
Regulatory Services (Environment)

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 *Public Sector Management Act 1994* and designated as responsible for the administration of Part V, Division 3 of the EP Act.
DWER	Department of Water and Environmental Regulation
EPA	Environmental Protection Authority
EP Act	*Environmental Protection Act 1986* (WA)
EP Regulations	*Environmental Protection Regulations 1987* (WA)
Licence Holder	Bituminous Products Pty Ltd
m^3	cubic metres
Minister	the Minister responsible for the EP Act and associated regulations
Occupier	has the same meaning given to that term under the EP Act.
Risk Event	as described in *Guidance Statement: Risk Assessment*

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 of amendment is given under section 59B(9) of the EP Act.

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

- *Guidance Statement: Regulatory Principles (July 2015);*
- *Guidance Statement: Setting Conditions (October 2015);*
- *Guidance Statement: Decision Making (February 2017); and*
- *Guidance Statement: Risk Assessment (February 2017).*

Amendment description

The Licence Holder is seeking approval to construct and operate a Polymer Modified Bitumen (PMB) plant on the premises in addition to its currently licensed plant (Category 36 Bitumen manufacturing). A modular PMB plant, which is similar to the existing bitumen plant, and a modular off gas scrubbing system with a stack are to be brought to site and assembled. The proposed new works are summarised in Table 2 below.

Table 2 Proposed New Infrastructure

PMB infrastructure and equipment	Operational requirements
PMB manufacturing plant	• U Shape Ribbon Mixer – volume capacity ~30.000 Litres; • Electrical drive for rotation of the ribbon mixer; • Fixed fully enclosed receival and despatch pipework; • Bitumen pump; • Raw material addition system; • Genset; • Self bunded fuel tank, (~2,000 litres); and • Maximum production capacity of 17,482 TPA.
PMB scrubber	• Enclosed and sealed inter connecting pipework for connection between the U shape mixer and the off gas scrubber inlet; • Operational start/stop and operational monitoring system, (local visual and audible alarm); • Multi-layer/path conditioning water scrubber; • 2 x activated carbon filters (in parallel); • Induced draft fan; and • Scrubber exhaust stack – minimum discharge height from ground level 3m.

PMB manufacture involves incorporating modifying agents into the bitumen within a purpose built mixing vessel. PMB products are made to order and pumped directly into road tankers for transportation to customers.

The PMB manufacturing process generates waste gases which are to be extracted and treated a scrubbing system. The scrubbing system consists of a water scrubbing column and an activated carbon filter, prior to emission via a stack to atmosphere. The proposed scrubbing system incorporates two activated carbon filters set out in parallel to allow for easy maintenance with one is in service at any time. The captured VOCs in the water scrubbing column are collected for disposal off site by a waste contractor. The scrubbing water is refreshed periodically to ensure sufficient water in the scrubber. To ensure the efficacy of the activated carbon. The number of PMB batches manufactured using elemental sulphur is

monitored such that up to a maximum of 25 of these batches are passed through an on line activated carbon column. In addition the performance of the activated carbon is monitored locally on site by monitoring for local odours and if/when detected - the activated carbon is then changed out more frequently. The date of each change out/changeover and number of batches passed through the carbon column, is recorded and maintained for audit purposes by Bituminous Products. The scrubber's technology is the same as that used at the Applicant's Cannington site, where it was installed to reduce odour. It has worked successfully at the Applicant's Cannington site.

Other than air emissions there are no discharges to the environment.

The plant is to be brought to site and assembled within a couple of days (it is a modular design).

Location and receptors

Table 3 below lists the relevant sensitive land uses in the vicinity of the Prescribed Premises which may be receptors relevant to the proposed amendment.

The distances to residential and sensitive receptors are detailed in Table 3.

Table 3: Receptors and distance from activity boundary

Sensitive Land Uses	Distance from Prescribed Activity
Residential Premises	The nearest residential premises are 2.6 km to the south-west in East Rockingham and 2.7 km to the east in Medina.
Sensitive commercial land use	The nearest sensitive commercial premises (outside the immediate industrial area) is a liquor store 1.2 km to the west in Kwinana Beach.

Table 4 below lists the relevant environmental receptors in the vicinity of the Prescribed Premises which may be receptors relevant to the proposed amendment.

Table 4: Environmental receptors and distance from activity boundary

Environmental receptors	Distance from Prescribed Premises
Cockburn Sound marine environment used for recreation and food production	1.6km to the west
Conservation category sumpland	1.2km to the east

Risk assessment

Tables 5 and 6 below describe the Risk Events associated with the amendment consistent with the *Guidance Statement: Risk Assessments*. Both tables identify whether the emissions present a material risk to public health or the environment, requiring regulatory controls.

Decision

The Delegated Officer has decided to grant the application and subject the licence to additional conditions. Licence Holder controls for the proposed works are conditioned on the Licence to ensure that air emissions are treated prior to discharge.

Licence Holder's comments

The Licence Holder was provided with a draft Amendment Notice on 22 December 2017. Comments received from the Licence Holder have been considered by the Delegated Officer in this final version.

Table 5: Risk assessment for proposed amendments during construction

Risk Event						Consequence rating	Likelihood rating	Risk	Reasoning
Source/Activities		Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts				
PMB manufacturing	Construction of the PMB plant	Noise	Residential premises 2.6km away	Air	Amenity impact	Slight	Rare	Low	Assembly will occur during normal working hours and is not a known activity with a lot of noise. Any noise issues can be resolved using the Environmental Protection (Noise) Regulations 1997. The proposed industrial activity is consistent with the zoning for the area and the site is within the Kwinana Industrial Area, well separated from residential premises.

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				
PMB manufacturing	Operation of the PMB manufacturing plant	VOC emissions/ Odour	Residential premises 2.6km away and industrial premises immediately adjacent	Air, through a stack.	Health and amenity impacts	Slight	Rare	Low	The scrubbing system will prevent any unreasonable odours offsite and will ensure that Health and amenity impacts are prevented. As such the Delegated Officer decided that this will be acceptable and no limits will be required to be imposed on the emissions. The proposed industrial activity is consistent with the zoning for the area and the site is within the Kwinana Industrial Area, well separated from residential premises.

Details of the Amendment

1. Table 1of the Licence is amended by the insertion of one additional row as shown in the red underlined text below:

PMB	*means Polymer Modified Bitumen.*

2. Condition 1 of the Licence is amended by the insertion of the red underlined text shown below:

The Licence Holder must not cause any Emissions from the Primary Activities on the Premises except for General emissions and PMB emissions described in Column 1 of Table 2 subject to the exclusions, limitations or requirements specified in Column 2 of Table 2.

3. Table 2 of the Licence is amended by the insertion of two rows and the red underlined shown below:

PMB emissions	***Exclusions, limitations or requirements***
Emissions from the PMB scrubber	• *Emissions from the PMB manufacturing process, have to be treated by the PMB scrubber system prior to discharge into the environment.* • *VOC emissions are to be kept below odour detection outside the boundary of the premises.*

4. The Licence is amended by the insertion of the following heading, Condition 6 and Table 4 as shown below in red underlined text:

PMB Manufacturing Plant

6. The Licence Holder must install and operate the works as described in Table 4 PMB Infrastructure

Table 4: PMB Infrastructure

PMB infrastructure and equipment	***Operational requirements***
PMB manufacturing plant	• *U Shape Ribbon Mixer – volume capacity ~30.000 Litres* • *Electrical drive for rotation of the ribbon mixer* • *Fixed fully enclosed receival and despatch pipework* • *Bitumen pump* • *Raw material addition system* • *Genset* • *Self bunded fuel tank, (~2,000 litres)* • *Maximum production capacity of 17,482 TPA*
PMB scrubber	• *Enclosed and sealed inter connecting pipework for connection between the U shape mixer and the off gas scrubber inlet* • *Operational start/stop and operational monitoring system, (local visual and audible alarm)* • *Multi-layer/path conditioning water scrubber* • *2 x activated carbon filters (in parallel)* • *Induced draft fan* • *Scrubber exhaust stack – minimum discharge height from ground level 3m*

Appendix 1: Key documents

	Document title	In text ref	Availability
1	Licence L9084/2017/1 Bituminous Products Pty Ltd	L9084/2017/1	Available at www.dwer.wa.gov.au
2	Works Approval W5981/2016/1	W5981/2016/1	Available at www.dwer.wa.gov.au
3	Email from Neil Chamberlain with additional information regarding the proposed infrastructure, dated 20/12/2017	-	Stored within DWER's electronic archive under A1583930
4	DER, July 2015. *Guidance Statement: Regulatory principles.* Department of Environment Regulation, Perth.	DER 2015a	accessed at www.dwer.wa.gov.au
5	DER, October 2015. *Guidance Statement: Setting conditions.* Department of Environment Regulation, Perth.	DER 2015b	
6	DER, November 2016. *Guidance Statement: Risk Assessments*. Department of Environment Regulation, Perth.	DER 2016b	
7	DER, November 2016. *Guidance Statement: Decision Making*. Department of Environment Regulation, Perth.	DER 2016c	