



Application for Licence Amendment

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

Licence Number	L9184/2018/1
Licence Holder	SAMI Bitumen Technologies Pty Ltd
ACN	001 089 416
File Number	DER2018/001632
Premises	SAMI Bitumen Kwinana 57 Port Road KWINANA BEACH WA 6167 Legal description – Part of Lot 108 on Deposited Plan 400167 As defined by the coordinates in Schedule 1 of the Revised Licence
Date of Report	16 February 2023
Decision	Revised licence granted

MANAGER, PROCESS INDUSTRIES

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

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1. Decision summary

Licence L9184/2018/1 is held by SAMI Bitumen Technologies (Licence Holder) for the SAMI Bitumen Kwinana facility (the Premises), located at 57 Port Road, Kwinana Beach.

This Amendment Report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges during the operation of the Premises. As a result of this assessment, Revised Licence L9184/2018/1 has been granted.

The Revised Licence issued as a result of this amendment consolidates and supersedes the existing Licence previously granted in relation to the Premises.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this Amendment Report, the department has considered and given due regard to its Regulatory Framework and relevant policy documents which are available at <https://dwer.wa.gov.au/regulatory-documents>.

2.2 Application summary

On 18 November 2022, the Licence Holder submitted an application to the department to amend Licence L9184/2018/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- Inclusion of infrastructure constructed under stage 2 of works approval W5934/2015/1 into licence infrastructure table.
- Addition of new emission points.

Works Approval W5934/2015/1 was granted on 11/3/2016 and was divided into 3 stages:

- Stage 1: construction of the main project components including product unloading pipe from the wharf, oxidation plant and bulk storage tanks.
- Stage 2: installation of emulsion and polymer modified bitumen plant and associated infrastructure, additional day – storage tanks and truck loading gantries
- Stage 3: construction of additional storage tanks and truck loading gantry.

The work approval holder submitted the compliance report for Stage 2 of the works approval on 18 November 2022. The compliance report noted two minor variations from the exact wording of the works approval:

- one of the day storage tanks was too close to the bund wall to prevent jetting of material beyond the bund wall so a shield was installed to achieve the same affect; and
- the bunding was not installed on the PMB and Bitumen Emulsion plant because these are minor storage according to the Australian Standard.

This will not cause significant change in risk as discussed in the risk assessment for the operation of the approved works.

3. Risk assessment

The department assesses the risks of emissions from prescribed premises and identifies the potential source, pathway and impact to receptors in accordance with the *Guideline: Risk*

assessments (DWER 2020).

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 Source-pathways and receptors

3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises operation which have been considered in this Amendment Report are detailed in Table 1 below. Table 1 also details the proposed control measures the licence holder has proposed to assist in controlling these emissions, where necessary.

Table 1: Licence holder controls

Emission	Sources	Potential pathways	Proposed controls
Odour	Transfer of heated bitumen and manufacture of crumbed rubber modified bitumen (CRMB) and polymer modified bitumen (PMB)	Air/windborne pathway	Capture of emissions through vapour recovery and carbon filtration

3.1.2 Receptors

In accordance with the *Guideline: Risk assessments* (DWER 2020), 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 2 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 (*Guideline: Environmental siting* (DWER 2020)).

Table 2: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	Distance from prescribed activity
Residential Premises	3.3 km from east from boundary
Single residence café and liquor store	420 metres south from boundary
Environmental receptors	Distance from prescribed activity
Cockburn Sound marine environment	500 Metres west

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) 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 3.

The Revised Licence L9184/2018/1 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises i.e. bitumen manufacturing activities.

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

Table 3. Risk assessment of potential emissions and discharges from the Premises operation

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licence holder's controls sufficient?	Conditions ² of licence	Reasoning
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence holder's controls				
Operation								
Manufacture of PMB and CRMB. Transfer of organic liquids both heated and ambient	Odour	Air/windborne pathway causing impacts to health and amenity	Single residence 420m south and residential area 3 300 metres east	Refer to Section 3.1	C = Moderate L = Unlikely Medium Risk	Y	Condition 1	The units for mixing polymer modified bitumen and crumbed rubber modified bitumen are fitted with carbon filter canister's to be managed according to the manufacturer's instructions and licence conditions prescribe operating at more than 90% saturation of filter media.

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guideline: Risk assessments* (DWER 2020).

Note 2: Proposed Licence Holder's controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

4. Consultation

Table 4 provides a summary of the consultation undertaken by the department.

Table 4: Consultation

Consultation method	Comments received	Department response
Local Government Authority advised of proposal 12/12/2022	NA	NA
Licence Holder was provided with draft amendment on 10 January 2023	The licence holder replied on 15 February 2023 stating they had no comment	N/A

5. Decision

The Delegated Officer has determined that the additional infrastructure installed as part of Stage 2 of works approval W5934/2015/1 may be included on the licence for operation to produce PMB, CRMB and bitumen emulsion. In addition, The Delegated officer has determined that emission points for new oil heaters should be included in the licence.

The Delegated Officer has determined the change of pollution control equipment for PMB is acceptable on the grounds that:

- carbon filters are recognised and established method for odour control of similar plants;
- the new equipment has carbon filters integrated into the plant by the manufacturer; and
- the bitumen emulsion plant is of very low risk of odour production.

In the process of amending the licence, a typographical error was identified in Table 1 (Infrastructure and equipment requirements) for operation of the thermal oxidiser. The combustion chamber is required to be held at a temperature not less than 760°C during plant operation, as opposed to the 700°C stated in the licence version dated 23 June 2022. This is consistent with the licence holder's commissioning plan for stable operation of the thermal oxidiser.

6. Conclusion

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.

6.1 Summary of amendments

Table 5 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 5: Summary of licence amendments

Condition #	Proposed amendments
1	Inclusion of new infrastructure for the production of PMB and CRMB, and additional day storage tanks.
2	Inclusion of additional authorised emission points

References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.

Appendix 1: Application validation summary

SECTION 1: APPLICATION SUMMARY					
Application type					
Amendment to licence	<input checked="" type="checkbox"/>	Current licence number:	L9184/2018/1		
		Relevant works approval number:	W5934/2015/1	N/A	<input type="checkbox"/>
Date application received		18 November 2022			
Applicant and Premises details					
Applicant name/s (full legal name/s)		SAMI Bitumen Technologies PTY LTD			
Premises name		SAMI Bitumen Kwinana			
Premises location		57 Port Road, Kwinana Beach WA 6167			
Local Government Authority		City of Kwinana			
Application documents					
HPCM file reference number:		A2139839			
Key application documents (additional to application form):		Compliance document for Works Approval W5934 stage 2			
Scope of application/assessment					
Summary of proposed activities or changes to existing operations.		Licence amendment Operation of Bitumen manufacturing facility Amendment of infrastructure table to include additional infrastructure constructed during stage 2 of the works approval			
Category number/s (activities that cause the premises to become prescribed premises)					
Table 1: Prescribed premises categories					
Prescribed premises category and description	Assessed production or design capacity	Proposed changes to the production or design capacity (amendments only)			
Category 36: Bitumen Manufacture	90,000 tonnes per annum	NA			
Legislative context and other approvals					
Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	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"/>			
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial statement No: EPA Report No:			
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Reference No:			

Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Certificate of title <input type="checkbox"/> General lease <input checked="" type="checkbox"/> Expiry: Mining lease / tenement <input type="checkbox"/> Expiry: Other evidence <input type="checkbox"/> Expiry:
Has the applicant obtained all relevant planning approvals?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Approval: Expiry date: If N/A explain why?
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	CPS No: N/A No clearing is proposed.
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Application reference No: N/A Licence/permit No: N/A No clearing is proposed.
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Application reference No: Licence/permit No: Licence / permit not required.
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	NA
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: N/A
Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx</i>)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<i>Dangerous Goods Safety Act 2004,</i>
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Environmental Protection (Kwinana) (Atmospheric Wastes) Policy
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	NA
Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i> ?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Classification: possibly contaminated – investigation required (PC–IR) Date of classification: 31 August 2018