



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	<p>SAMI Bitumen Kwinana</p> <p>57 Port Road KWINANA BEACH WA 6167</p> <p>Legal description –</p> <p>Part of Lot 108 on Deposited Plan 400167</p> <p>As defined by the coordinates in Schedule 1 of the Revised Licence</p>
Date of Report	23/06/2022
Proposed Decision	Revised licence granted

Table of Contents

1. Decision summary	1
2. Scope of assessment	1
2.1 Regulatory framework	1
2.2 Application summary	1
3. Risk assessment	1
3.1 Source-pathways and receptors	2
3.1.1 Emissions and controls	2
3.1.2 Receptors	2
3.2 Risk ratings	3
4. Consultation	5
5. Decision	5
6. Conclusion	5
6.1 Summary of amendments	5
References	6
Appendix 2: Application validation summary	7
Table 1: Licence holder controls	2
Table 2: Sensitive human and environmental receptors and distance from prescribed activity	2
Table 3. Risk assessment of potential emissions and discharges from the Premises operation	4
Table 4: Summary of licence amendments	5

1. Decision summary

Licence L9184 is held by SAMI Bitumen Technologies Pty Ltd (Licence Holder) for the SAMI Bitumen Kwinana (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 has been granted.

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 its Regulatory Framework and relevant policy documents which are available at <https://dwer.wa.gov.au/regulatory-documents>.

2.2 Application summary

On 9 December 2021, the licence holder applied to the department to amend Licence L9184 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act).

The licence holder is seeking to remove condition 4 which sets a limit on odour emissions from the vapour recovery units (VRU) on the basis of the follow reasons from the application:

- the complex mixture of chemicals mean that the 95% odour abatement may not be achievable;
- the accuracy and precision error in both sampling and analysis of odour units inherent in AS/NZ 4323.3:2001 make odour abatement an impractical measure for compliance monitoring;
- the odour emission rates at the outlets to the VRUs are unlikely to impact at ground level;
- there have been no odour complaints about the premises during the time it has been operating;
- licences for other category 36 premises do not have an odour unit emission limit.

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 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 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 requirement to monitor odour concentration from the carbon canister vapour recovery units will be deleted along with the associated odour efficiency limit. The delegated officer agreed the odour monitoring was likely to have large error margins which was evident in past monitoring supplied by the licence holder. Monitoring of point source odour for regulatory monitoring purposes, particularly for demonstrating compliance with an odour treatment efficiency limit is likely to be of limited value for managing risk. There is no evidence to suggest the vapour recovery units have caused odour impacts. The delegated officer was of the view that the most important aspect of the carbon filters is to ensure they are maintained at minimum according to manufacturers specifications to ensure an ongoing acceptable level of odour treatment. This will be included as an operational requirement in condition 1.

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

The licence holder was provided with a draft amendment report and draft revised licence on 30 May 2022. The licence holder replied 21 June 2022 asking for a typographical error to be changed.

5. Decision

The delegated officer has determined to amend the licence to:

- Delete condition 5 - vapour recovery unit odour monitoring requirements
- Delete condition 3 – odour treatment efficiency limit
- Amend condition 2 (infrastructure requirements) on the existing licence to require that the vapour recovery units are maintained at minimum in accordance with manufacturers specifications.

The delegated officer considered that the margin of error in the point source monitoring results was such that it did not have value for regulatory compliance purposes or managing risk. The associated limit was therefore of not further value and also deleted. There is no evidence of odour impacts associated with the vapour recovery units. The included requirement to ensure the vapour recovery units are maintained to manufacturers specification was viewed as a reasonable and adequate requirement to ensure that efficiency of the treatment system is maintained to an acceptable level.

The delegated officer also made administrative updates to the format of the licence including the removal of redundant conditions such as condition 1 (on the existing licence) which does not impact on the risk profile of emissions.

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 4 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 4: Summary of licence amendments

Condition no.	Proposed amendments
Explanatory Notes	Deleted. Revised to current licensing format
Condition 1 of existing licence	Deleted redundant condition. Revised to current licence format.
Condition 2 of existing licence	Revised to current licensing format. Additional requirement on VRU units in place of condition 4
Condition 4 of existing licence	Deleted to remove the licence limit for vapour recovery units
Condition 6 and 7 of existing licence	Remove the requirement for monitoring of odour units from the VRU on site.
Schedule 2	Deleted. Revised to current licensing format

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 2: Application validation summary

SECTION 1: APPLICATION SUMMARY			
Application type			
Amendment to licence	<input checked="" type="checkbox"/>	Current licence number:	L9184/2018/1
Date application received	9/12/2021		
Applicant and Premises details			
Applicant name/s (full legal name/s)	SAMI Bitumen Technologies Pty Ltd		
Premises name	SAMI Bitumen Kwinana		
Premises location	Part Lot 108 on Plan 400167		
Local Government Authority	City of Kwinana		
Application documents			
HPCM file reference number:	DWERDT536902		
Key application documents (additional to application form):	Report from Odour Process Audit Management (OPAM)		
Scope of application/assessment			
Summary of proposed activities or changes to existing operations.	<p>Licence holder is seeking amendment for the removal of limits on the vapour recovery units at the existing bitumen manufacturing facility. The licence holder has advised that the condition is not practicable because the precision of the test required by Condition 6 is insufficient to determine compliance and odour emission rates from the Vapour Recovery Units are such that they are unlikely to impact at ground level. Furthermore similar facilities in the state are not subject to this requirement.</p> <p>Licence holder also notes typographical error on the front page of the licence that needs updating.</p>		
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: <i>Bitumen Manufacture</i>	<i>90 000 tonnes per annum</i>	NA no proposed change	
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 checked="" type="checkbox"/>
Has the applicant obtained all relevant planning approvals?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Approval:
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"/>	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"/>	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"/>	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"/>	Name: N/A
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: N/A Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
Is the Premises subject to any other Acts or subsidiary regulations?	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"/>	Kwinana EPP (air quality)
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: N/A