Government of Western Australia
Department of Water and Environmental Regulation

Decision Report

Application for Works Approval

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

Works Approval Number	W6729/2022/1
Applicant	Wespine Industries Pty Ltd
ACN	052 954 337
File number	DER2022/000443
Premises	Wespine Dardanup Pine Log Sawmill 241 Moore Road DARDANUP WEST WA 6236 Lot 510 on Deposited Plan 411397 Certificate of Title Volume 2989 Folio 577 As defined by the premises maps attached to the issued works approval
Date of report	14 June 2024
Proposed Decision	Works approval granted

Michael Greenslade

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

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1. Decision summary

This decision report documents the assessment of potential risks to the environment and public health from emissions and discharges during the construction and operation of the premises. As a result of this assessment, works approval W6729/2022/1 has been granted.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this decision report, the Department of Water and Environmental Regulation (the department; DWER) 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

Wespine Industries Pty Ltd (the applicant, Licence Holder) currently holds Licence L8357/2009/2 for category 29 (timber preserving) under Part V of the *Environmental Protection Act 1986* (EP Act). The premises is located approximately 10 km south-east of Bunbury. Currently the premises operates as a sawmill with a production capacity of more than 200,000 cubic metres (m^3) per annual period and the majority of the structurally produced timber is preserved with an insecticide (Bifenthrin).

On 31 August 2022, the applicant submitted an application for a works approval to the department under section 54 of the EP Act.

The application is to undertake construction works relating to a Light Organic Solvent Preservative (LOSP) chemical timber treatment facility at the premises for treatment of up to 80,000 m^3 per annual period of structural timber.

As part of an existing timber treatment arrangement, the applicant currently moves milled and processed timber offsite for treatment at another licensed timber preserving premises (Koppers Picton L4605/1987/11). The proposed construction of the LOSP Facility at the premises involves the relocation of the treatment equipment from this site, and will operate in the same way. The new LOSP facility will include the construction of a shed to enclose treatment activities, inclusive of the treatment storage tank and timber storage areas, as well as a bio-filtration channel and storm water surge dam adjacent to the new LOSP facility.

The following chemicals will arrive at the premises, premixed, via tanker trucks and are transferred directly to the chemical storage tank which has a capacity of 67,000 L:

- Protim Optimum Concentrate (Class 9 Dangerous Good),
- Protim Resin Liquid Concentrate and
- Solvex 2046 HF Kerosene (C1 Combustibles)

Chemicals are then transferred to the working tank for the autoclave via an above ground pipeline. Treatment of timber will be undertaken in a vacuum sealed autoclave via pressure impregnation before being transferred to an area to dry.

The premises relates to the category and assessed production capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in works approval W6729/2022/1. The infrastructure and equipment relating to the premises category and any associated activities which the department has considered in line with *Guideline: Risk Assessments* (DWER 2020) are outlined in works approval W6729/2022/1.

2.2.1 Clearing

A total area of 0.7066 hectares (ha) including 0.4486 ha of non-native planted pine and 0.2580 ha of native tree plantings, will be cleared as necessary for construction of the LOSP facility. The site is not within an environmentally sensitive area (ESA) and the applicant considers that the clearing is exempt from the requirement to apply for a clearing permit as per Regulation 5 of the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004.*

2.3 Dardanup Pine Log Sawmill Agreement Act 1992

As part of a State Agreement between the Western Australian government and Wespine Industries, a proposal will need to be submitted to the Minister for State Development to implement this project. This is dependent on all other regulatory approvals.

2.4 Part IV of the EP Act

On 19 October 2023, the Licence Holder, who is also the proponent for Ministerial Statement 312 (MS312), submitted a request to the CEO of the department under s.47A of the *Environmental Protection Act 1986* (EP Act) for the withdrawal of MS312. On 21 May 2024, the Environmental Protection Authority (EPA) gave approval for the withdrawal of MS312. In the summary of reasons provided, the EPA determined that:

- The Ministerial Statement has been withdrawn under s. 47A(3)(b). The impacts of the implementation of the proposal can be satisfactorily mitigated by way of licensing or some other form of regulatory control under this Act or another written law; and
- The implementation of the proposal can be satisfactorily mitigated under Part V of the EP Act (L8357/2009/2) and the *Contaminates Sites Act 2003.*

2.5 Environmental Protection (Noise) Regulations

Until 17 May 2023, the Licence Holder held an approval under regulation 17 for the Dardanup Sawmill - Environmental Protection (Dardanup Pine Log Sawmill Noise Emissions) Approval 2013. The approved noise levels were designed to align with the noise limits outlined in MS 312, by allowing the noise emissions from the Premises to be 5 dB higher than the assigned levels in the Environmental Protection (Noise) Regulations 1997 (Noise Regulations).

The Licence Holder has applied under Regulation 17 of the Noise Regulations for approval to allow noise emissions from the Premises to exceed or vary from the prescribed standard. The application requests the retention of the 5 dB variation to the assigned noise levels as contained in the previous approval.

Assessment of the application is nearing final stages with the draft Assessment Report having been released for consultation.

Key findings: Noting that an application for approval under Regulation 17 is in progress, the delegated officer considers that noise emissions from the Premises will be appropriately regulated under Regulation 17 of the Environmental Protection (Noise) Regulations 1997.

The draft assessment reports recommends that, in addition to specifying the allowable noise levels, the approval under Regulation 17 also specifies that the Licence Holder develop and implement a noise management plan that includes noise control measures to be implemented to minimise noise, a noise monitoring program and procedures for managing noise complaints.

2.6 Rights in Water and Irrigation Act 1914

The Licence Holder holds a groundwater Licence (GLW97553) for the premises which authorises the taking of 190,000 KL of water. As part of the conditions of the Licence, the Licence Holder is required to undertake quarterly water quality sampling and analysis for groundwater production bores, for the parameters in Table 1, which are reported to the department annually. No limits set for water quality parameters as part of GLW97553.

Table 1: Quarterly water quality monitoring required by GWL97553

Parameters		
pH	Sodium (Na)	Ammonia (NH_3)
Electrical conductivity (µS/cm)	Potassium (K)	Phosphate (PO_4)
Total Dissolved Solids (TDS)	Carbonate (CO_3)	Silica (SiO2)
Total Hardness (as $CaCO_3$)	Bicarbonate (HCO_3)	Aluminum (Al)
Total Alkalinity (as $CaCO_3$)	Chloride (Cl)	Iron (Fe)
Calcium (Ca)	Sulphate (SO_4)	Manganese (Mn)
Magnesium (Mg)	Nitrate (NO_3)	

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 Applicant controls

The key emissions and associated actual or likely pathway during premises construction and operation which have been considered in this decision report are detailed in Table 2 below. Table 2 also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary.

Table 2: Applicant's proposed controls

Emission	**Sources**	**Potential pathways**	**Proposed controls**
Construction			
Dust Noise	Vehicle and equipment movements. Construction of new buildings, plant and infrastructure	Air / windborne pathway	• The premised has a buffer zone of pine plantation to the East and South of the existing facility. • Separation distance to receptors greater than the recommended separation distance of 300 – 500m for timber preserving treatment. • Roads and surrounds of LOSP Facility are sealed.

Emission	Sources	Potential pathways	Proposed controls
Operation			
Noise Dust	Delivery, storage and handling of LOSP treatment chemicals. Operation of the autoclave and liquid transfer pump systems, including loading and unloading of timber. Drying of timber where solvent is evaporating from timber surfaces	Air / windborne pathway	• The treatment process commences in the bunded area under vacuum, then pressure is applied to impregnate the timber, with a vacuum applied at the conclusion of the treatment process. • The premised has a buffer zone of pine plantation to the East and South of the existing facility. • Separation distance to receptors greater than the recommended separation distance of 300 – 500m for timber preserving treatment. • Roads and surrounds of LOSP Facility are sealed.
Hydrocarbons, chemicals and waste Contaminated stormwater		Seepage through the underlying soil profile. Overland flow into surface water receptors.	• The LOSP Facility will be designed and built to comply with the requirements of: a. Australian Standard AS 2843.1:2006 (Timber Preservation Plants Part 1 – Timber Preservation Plant Site Design) and AS 2843.2:2006 (Timber Preservation Plants Part 2 – Treatment Area Operation). b. Australian Standard AS4681 storage and handling of Class 9 Dangerous goods c. Australian Standard AS1940 storage and handling of Class C1 Dangerous Goods • Shed to be roofed and enclosed with an impervious concrete floor and bunded to 110% of process volume. • The treatment process commences in the bunded area under vacuum, then pressure is applied to impregnate the timber, with a vacuum applied at the conclusion of the treatment process. • Unused chemicals are recycled back into the working tank for reuse. • Waste sludge (approximately 1,000L per annum) will be stored in the bunded area and disposed of in accordance with waste disposal standards. • Loading and unloading of chemicals within bunded area. • Drying of timber takes place within bunded area. • Chemical delivered directly to bunded Chemical Storage Tank. • High level alarms with overfill prevention cut offs for Treatment Storage Tank along with isolation locks. • All waste collected in skip bins and disposed of offsite via contractor. • Above ground pipeline constructed of double skinned steel. • Bio-filtration channel and storm water surge dam with the ability to be closed off due to a failure of the bund and / or the storage equipment. • Additional groundwater monitoring bore.

Emission	Sources	Potential pathways	Proposed controls
Odour	Drying of timber where solvent is evaporating from timber surfaces	Air / windborne pathway	• The premised has a buffer zone of pine plantation to the East and South of the existing facility. • Separation distance to receptors greater than the recommended separation distance of 300 – 500m for timber preserving treatment. • Treatment process undertaken within a vacuum.

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 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 *(Guideline: Environmental siting* (DWER 2020)).

Table 3: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	Distance from prescribed activity
Dardanup Townsite	3 km south-east of the Premises
Rural residential premises	Nearest residents: • 650 m east of the Premises boundary (900 m east of the stockyard) • 550 m south of the Premises boundary
Industrial (prescribed) premises (Hexion Australia Pty Ltd)	150 m northwest of the Premises boundary
Industrial (prescribed) premises (Laminex Group Pty Limited)	300 m northwest of the Premises boundary
Environmental receptors	**Distance from prescribed activity**
Waterways	Preston River tributary 350 m southwest of the boundary at its nearest point. Preston River 1.7 km west of the Premises boundary. Ferguson River 1.3 km northeast. There appears to be a drainage line directly from the eastern boundary of the Premises to the Ferguson River. Situated adjacent to the Leschenault Inlet Management Area.
Aboriginal Heritage Place	Preston River (Place ID 19795)
Bunbury Groundwater Area	Premises located within Bunbury Groundwater Area. Depth to groundwater at the premise typically 0.5 – 2 mbgl. Results of groundwater monitoring since 2021 indicates that groundwater is marginally fresh with a Total Dissolved Solids range of <100 mg/L –

	1,000 mg/L and pH ranging between 6 – 7.6.
Collie Irrigation District	Located ~1.4 km to the east of the Premises
Leschenault Inlet Management Area (*Waterways Conservation Act 1976*)	Boundary of the Management Area located adjacent 200 m west of the Premises.
Threatened Ecological Community	Banksia Dominated Woodlands of the Swan Coastal Plain – Listed as endangered. Located on and surrounding the Premises.

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. Where linkages are incomplete they have not been considered further in the risk assessment.

Where the applicant has proposed mitigation measures/controls (as detailed in section 3), these have been considered when determining the final risk rating. Where the delegated officer considers the applicants 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 applicants controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 4.

Works Approval W6729/2022/1 that accompanies this Decision Report authorises construction and time limited operations. The conditions in the issued works approval, as outlined in Table 4, have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

A licence amendment is required following the time-limited operational phase authorised under the works approval to authorise emissions associated with the ongoing operation of the premises. A risk assessment for the operational phase has been included in this decision report, however licence conditions will not be finalised until the department assesses the licence application.

Table 4: Risk assessment of potential emissions and discharges from the premises during construction and operation

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval Justification for additional regulatory controls
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**			
Construction							
Excavation and construction of the LOSP facility, entrance upgrade and ancillaries	Dust	Air / windborne pathway causing impacts to health and amenity	Nearest rural residence 550m to the south	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	Dust emissions as a result of construction activities are expected to be consistent with existing operations.
	Noise				C = Minor L = Unlikely **Medium Risk**	Y	Noise emissions associated with construction activities are not expected to be significant. Notwithstanding this, noise emissions from the premises are required to be managed in accordance with the approved variation to the assigned levels as authorised via Regulation 17 of the Environmental Protection (Noise) Regulations 1997.
Operation (including time-limited-operations operations)							
Delivery, storage and handling of LOSP treatment chemicals.	Chemical spill, leakage, or breach of containment: • Protim Optimum Concentrate (Class 9 Dangerous Good) • Protim Resin Liquid Concentrate, and Solvex 2046 HF Kerosene (both C1 Combustible) • Zinc tracer solution	Overland runoff of stormwater via roadside culverts, potentially causing ecosystem disturbance or impacting surface water quality. Chemical infiltration of soils resulting in groundwater impacts	Preston River tributary 350 m southwest of the boundary at its nearest point. Collie River Irrigation District located 1.4km east of premises. TECs located on boundary of premises. Depth to groundwater 0.5 to 2 mBGL.	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	The active ingredients in Protim Concentrate are Permethrin (3.2g/L), Propiconazole (4.5g/L) and Tebuconazole (4.5g/L). These are readily degraded by microbial activity therefore are unlikely to reach groundwater or have a long term impact on soil quality. Solvex Kerosene however is a persistent contaminant in soil and groundwater. Protim Optimum Concentrate and Solvex Kerosene are also both classified as being highly toxic to aquatic organisms and can have long-term adverse effects in an aquatic environment. The delegated officer has reviewed the proposed controls to manage the risks associated with the delivery and storage of these chemicals and considers that the controls proposed to manage these risks are generally sufficient and have been included as controls within the Works Approval. The delegated officer also notes that the storage and handling of these chemicals is subject to requirements under the *Dangerous Goods Safety*

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval Justification for additional regulatory controls
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**			
							Act 2004. The delegated officer also notes that water quality monitoring is also undertaken in accordance with GLW97553 and L8357/2009/2. An additional groundwater monitoring bore, as proposed by the applicant is conditioned in the works approval to ensure that risks to groundwater are appropriately monitored. The general provisions of the *Environmental Protection Act 1986* and Environmental Protection Regulations 2004 (Unauthorised Discharges) apply during operations
Operation of the autoclave and liquid transfer pump systems, including loading and unloading of timber.	Noise	Air / windborne pathway causing impacts to health and amenity		Refer to Section 3.1	C = Minor L = Possible **Medium Risk**	Y	Additional noise emissions associated with the operation of the new facility are not expected to increase current noise levels significantly. Noise emissions from the premises are regulated under the Regulation 17 approval which authorises noise emissions from the premises to exceed or vary from the assigned levels.
	Waste from treatment process	Overland runoff of stormwater via roadside culverts, potentially causing ecosystem disturbance or impacting surface water quality. Chemical infiltration of soils resulting in groundwater impacts	Preston River tributary 350 m southwest of the boundary at its nearest point. Collie River Irrigation District located 1.4km east of premises. TECs located on boundary of premises. Depth to groundwater 0.5 to 2 mBGL.	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	The delegated officer considers that the controls proposed to manage the risks associated with the operation of the autoclave are generally sufficient and have been included as controls within the Works Approval.

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval Justification for additional regulatory controls
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**			
Drying of timber where solvent is evaporating from timber surfaces	Odour	Air / windborne pathway causing impacts to health and amenity	Nearest rural residence 615m to the south	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	There is considered to be no discernible odour from timber treatment via an autoclave as the treatment process occurs under a vacuum and residual LOSP is returned to the work tank following the completion of a treatment cycle. The delegated officer considers that the controls proposed to manage the risks associated with the drying of timber are generally sufficient and have been included as controls within the Works Approval.
	Air emissions			Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	
	Chemical dripping from drying timber	Overland runoff of stormwater via roadside culverts, potentially causing ecosystem disturbance or impacting surface water quality. Chemical infiltration of soils resulting in groundwater impacts	Preston River tributary 350 m southwest of the boundary at its nearest point. Collie River Irrigation District located 1.4km east of premises. TECs located on boundary of premises. Depth to groundwater 0.5 to 2 mBGL.	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Y	The delegated officer considers that the controls proposed to manage the risks associated with the drying of timber are generally sufficient and have been included as controls within the Works Approval.

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

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

4. Consultation

Table 5 provides a summary of the consultation undertaken by the department.

Table 5: Consultation

Consultation method	Comments received	Department response
Application advertised on the department's website on 28 September 2022	None received	N/A
Department of Jobs, Tourism, Science and Innovation (DJTSI) advised of proposal on 28 September 2022	DJTSI replied on 18 October 2022 advising that the applicant will need to submit a Proposal for the Minister for State Development's approval once all regulatory approvals are in place.	Noted.
Shire of Dardanup advised of proposal on 10 October 2022	The Shire of Dardanup replied on 24 October 2022 advising that the applicant has sought Development Approval (DA) and the application has been referred to relevant state agencies for comment. Correspondence from the Shire of Dardanup on 2 February 2024 confirmed that Development Approval was granted 6 April 2023.	Noted.
Department of Primary Industries and Regional Development (DPIRD) advised of proposal 10 October 2022	DPIRD replied on 24 October 2022 advising that there are no objections to this proposal.	Noted.
Applicant was provided with draft documents on 23 May 2024 and provided comments on 14 June 2024	The Applicant requested: 1. A minor change to the works approval commencement date to allow for scheduling changes as part of the proposed works. 2. That selection and confirmation of the proposed additional monitoring bore be completed after the granting of the works approval to allow for a geotechnical consultant to be engaged. 3. A minor change to the proposed wording associated with the treatment tank.	1. The delegated officer considers that it may be more appropriate to extend the expiry date of the works approval to allow for the requested changes. The expiry date is extended to four years from grant date. 2. The delegated officer accepts this proposal however has updated the conditions within the works approval to specify that the selection of bore location must be conducted by a suitably qualified consultant, and that the location of the monitoring bore is to suitably placed to detect potential emissions from the LOSP facility. 3. Noted and updated as requested.

5. Conclusion

Based on the assessment in this decision report, the delegated officer has determined that a works approval will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

Works proposed by the applicant associated with the LOSP facility are not expected to result in a significant increase in dust and noise impacts and noise emissions are subject to regulatory requirements of the approval issued under Regulation 17 of the Noise Regulations.

Chemical discharges as a result of timber treatment operations are not expected to have a significant impact as control measures are deemed appropriate and sufficient for the proposed facility. As part of time limited operation conditions for this Works Approval assessment of impacts to ground and surface waters, water quality parameters are to be monitored and it is recommended that upon transition of this Works Approval to Licence L8357/2009/2, monitoring and limits be incorporated into the Licence where relevant.

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.