



## Application for Works Approval Amendment

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

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<b>Works Approval Number</b>	W6821/2023/1
<b>Works Approval Holder</b>	Tyrecycle Pty Ltd
<b>ACN</b>	085 545 053
<b>File Number</b>	DER2023/000376
<b>Premises</b>	Tyrecycle Wedgefield 22 Moorambine Street WEDGEFIELD WA 6721  Legal description - Lot 100 on Deposited Plan 61456  As defined by the coordinates in Schedule 1 of the works approval
<b>Date of Report</b>	12 November 2024
<b>Decision</b>	Revised works approval granted

Abbie Crawford  
Manager, Waste Industries  
an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

[Works Approval: W6821/2023/1](#)

## Table of Contents

<b>1. Decision summary</b>	<b>1</b>
<b>2. Scope of assessment</b>	<b>1</b>
2.1 Regulatory framework	1
2.2 Amendment summary	1
<b>3. Risk assessment</b>	<b>2</b>
3.1 Source-pathways and receptors	2
3.1.1 Emissions and controls	2
3.1.2 Receptors	4
3.2 Risk ratings	6
<b>4. Consultation</b>	<b>9</b>
<b>5. Conclusion</b>	<b>9</b>
5.1 Summary of amendments	9
<b>References</b>	<b>10</b>
Table 1: Approved production capacity	2
Table 2: Works Approval Holder controls	2
Table 3: Sensitive human and environmental receptors and distance from prescribed activity	4
Table 4. Risk assessment of potential emissions and discharges from the Premises during commissioning	7
Table 5: Consultation	9
Table 6: Summary of works approval amendments	9
Figure 1: Distance to sensitive receptors	5

## 1. Decision summary

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 commissioning of the Premises. As a result of this assessment, Revised Works Approval W6821/2023/1 has been granted.

The Revised Works Approval issued as a result of this amendment consolidates and supersedes the existing Works Approval 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 Amendment summary

Works Approval W6821/2023/1 is held by Tyrecycle Pty Ltd (Works Approval Holder) for Tyrecycle Wedgefield (the Premises), located at 22 Moorambine Street, Wedgefield WA 6721. The Works Approval authorises the construction and time limited operations of the Premises. This includes asphaltting the outside yard area to create a surface barrier to prevent the infiltration of contaminated firewater, when the fire suppression system installed within the dome is activated during a fire event. Construction was anticipated to be completed in its entirety prior to commissioning being conducted under the time limited operations phase of the works approval.

Tyrecycle have recently advised that construction of the dome, concrete floor and installation of the internal fire suppression system is complete, however the asphalt contractor is unable to complete the yard works until December 2024.

In the meantime, the supplier of the MT Raptor and the MT Rex is scheduled to install the equipment within the dome on 11 November 2024. On 18 November 2024 the supplier needs to test the equipment is operating correctly, which will require the processing of a small number of tyres.

As the asphaltting will not be completed in alignment with the installation of the equipment, the full requirements of works approval condition 2 are unable to be met, thereby time limited operations cannot commence when operating equipment and processing tyres can occur.

On 29 October 2024 the Works Approval Holder submitted an application to the department to amend Works Approval W6821/2023/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act) requesting authorisation to conduct commissioning activities, including processing a limited quantity of six (6) tyres per day. No conveyor belts will be processed during commissioning.

The fire suppression system and concrete floor within the dome have been installed/constructed, however as the yard cannot be asphalted until December, it will not provide adequate retention of any contaminated firewater.

The Works Approval Holder has proposed a substitute fire suppression system consisting of ten (10) portable fire extinguishers for use during commissioning activities. In addition, cut rubber pieces resulting from commissioning activities will be stored within a sea container or side-tipper truck and securely held within the dome.

This amendment is limited only to the addition of commissioning of the equipment. No changes to the aspects of the existing Works Approval relating to Category 57 and 61A have been requested by the Works Approval Holder. Table 1 below outlines the proposed changes to the existing Works Approval

**Table 1: Approved production capacity**

Category	Approved production capacity
Category 57 Used tyre storage (general): premises (other than premises within category 56) on which used tyres are stored.	48 tyres at any one time
Category 61A Solid waste facility: premises (other than premises within category 67A) on which solid waste produced on other premises is stored, reprocessed, treated, or discharged onto land.	12,000 tonnes per annum of used tyres or conveyor belts

### 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 commissioning which have been considered in this Amendment Report are detailed in Table 2 below. Table 2 also details the proposed control measures the Works Approval Holder has proposed to assist in controlling these emissions, where necessary.

**Table 2: Works Approval Holder controls**

Sources	Emission	Potential pathways	Proposed controls
Commissioning of MT Raptor and MT Rex	Dust	Air / wind dispersion	All commissioning activities are to occur within the constructed dome.  Minimal dust generated from processing whole tyres and due to the large size of the cut pieces.  Regular cleaning and housekeeping will be carried out.
Commissioning of MT Raptor and MT Rex	Noise	Air / wind dispersion	No change to original proposed design and construction.  Commissioning to be complete within 30 days.

Sources	Emission	Potential pathways	Proposed controls
			<p>The modelled scenarios comply with the LA10 assigned noise levels, when the roller doors are closed.</p> <p>Further noise monitoring will be conducted during operations to determine the effectiveness of the louvres and overall compliance with the <i>Environmental Protection (Noise) Regulations 1997</i>.</p> <p>Equipment to be inspected and serviced in accordance with manufacturer specifications.</p> <p>All mobile equipment is to be inspected daily and serviced in accordance with each equipment's manufacturer recommended service schedule.</p>
Commissioning of MT Raptor and MT Rex	Unauthorised fires – smoke and fire spread	Air / wind dispersion	<p>Tyres will be stored within the dome structure for use during commissioning only.</p> <p>Construction of the dome is complete as per the original Works Approval application, including a sealed concrete hardstand floor.</p> <p>A limit of six (6) tyres per day will be transported to the premises for use during commissioning that day.</p> <p>There will be no overnight storage and no outside storage of tyres.</p> <p>Ten (10) fire extinguishers will be available inside the Dome for immediate, localised fire suppression. Additional fire extinguishers are also located in the yard.</p> <p>Storage of cut rubber pieces will be within a sea contained and securely held within the Dome.</p>
	Contaminated firefighting water	Overland flow Subsurface seepage	<p>As the fire suppression system installed within the Dome will produce substantial quantities of fire water during a fire event, this system will not be used should a fire occur during commissioning.</p> <p>Alternatively, ten (10) fire extinguishers will be available at the premises for immediate, localised fire suppression.</p>
	Contaminated stormwater	Overland flow Subsurface seepage	<p>Commissioning will occur within the Dome, therefore there will be no tyre contact with stormwater.</p>

Sources	Emission	Potential pathways	Proposed controls
	Hydrocarbon spills during refueling	Overland flow Subsurface seepage	No change to original proposed controls. Mobile equipment will be refueled by a scheduled mobile truck delivery. No fuel or diesel will be stored onsite. Designated LPG storage areas onsite. Storage quantities do not exceed the threshold for dangerous goods licence requirements. Minor quantities of grease and oil will be stored inside the dome in a designated storage area with appropriate bunding, for servicing and maintenance of the equipment. Spill kits will be available and staff trained for response.

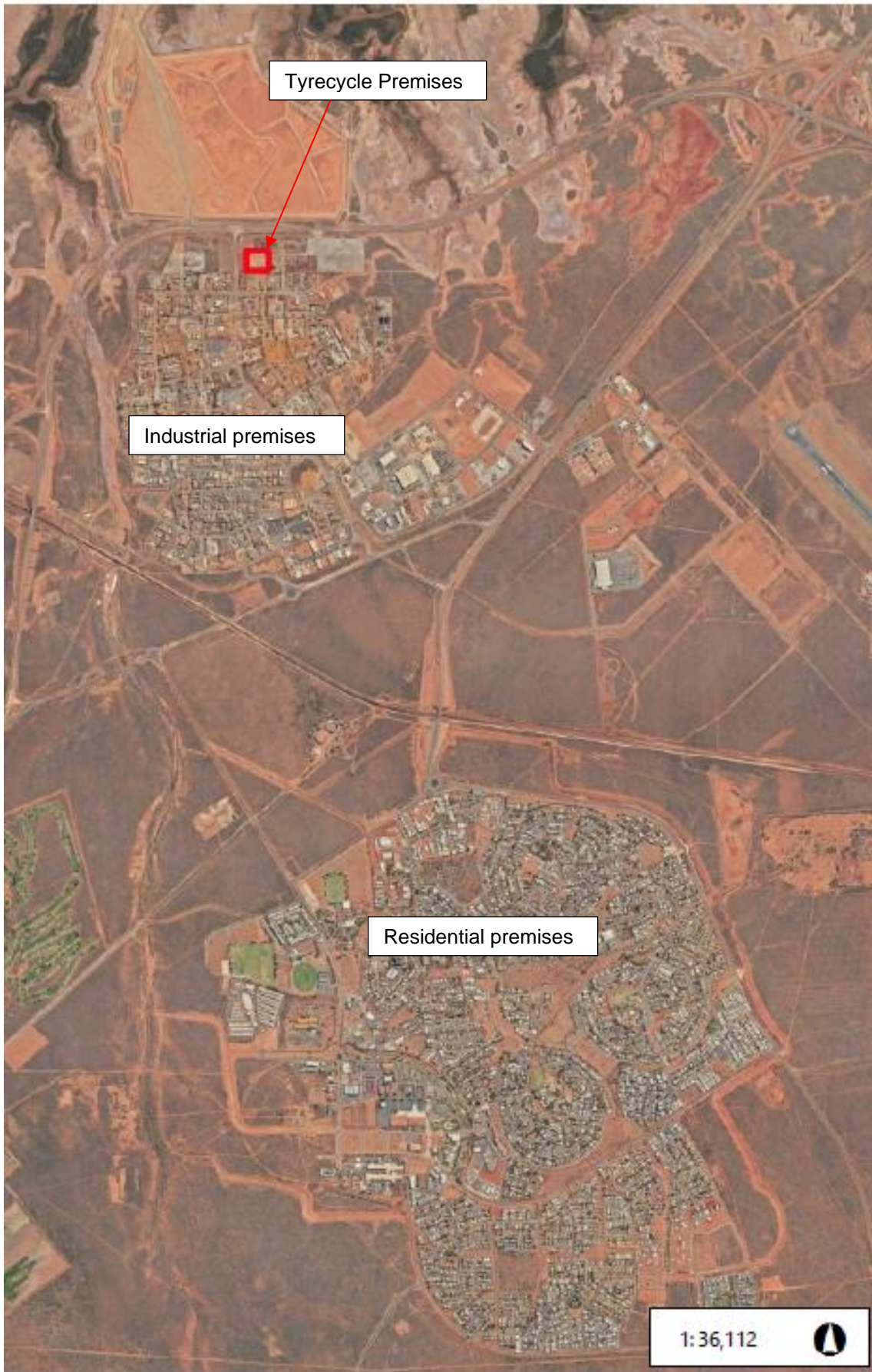
### 3.1.2 Receptors

In accordance with the *Guideline: Risk assessments* (DWER 2020), the Delegated Officer has excluded employees, visitors and contractors of the Works Approval 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 and Figure 1 below provide 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
Residential premises	3.2 km south of premises boundary
Industrial premises	Immediately surrounding the premises.
Environmental receptors	Distance from prescribed activity
RIWI Act Surface Water Areas	Within the Pilbara Surface Water Area
Hydrography	Major tributary located 830 m west of premises boundary
Threatened and Priority Fauna	There are four threatened and priority fauna within 1 km of the premises boundary, including: <ul style="list-style-type: none"> <li>one occurrence of <i>Ctenotus angusticeps</i>, a Priority 3 reptile;</li> <li>four occurrences of <i>Chlidonias leucopterus</i>, a bird species of migratory importance; and</li> <li>four occurrences of <i>Tringa glareola</i>, a bird species of migratory importance.</li> </ul>



**Figure 1: Distance to sensitive receptors**

Works Approval: [W6821/2023/1](#)

## 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 in-complete they have not been considered further in the risk assessment.

Where the Works Approval 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 Works Approval Holder's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the works approval as regulatory controls.

Additional regulatory controls may be imposed where the Works Approval 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 Works Approval W6821/2023/1 that accompanies this Amendment Report authorises construction, commissioning and time-limited operations. The conditions in the Revised Works Approval have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

A licence is required following the time-limited operational phase authorised under the works approval to authorise emissions associated with the operation of the Premises. A risk assessment for the operational phase has been included in this Amendment 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 commissioning

Risk Event					Risk rating <sup>1</sup> C = consequence L = likelihood	Works Approval Holder's controls sufficient?	Conditions <sup>2</sup> of works approval	Justification for additional regulatory controls
Source / Activities	Potential emission	Potential pathways and impact	Receptors	Works Approval Holder's controls				
<b>Commissioning</b>								
Commissioning of MT Raptor and MT Rex processing equipment	Dust	Air/windborne pathway Causing impacts to health and amenity	Surrounding industrial receptors	Refer to Section 3.1	C = Slight L = Unlikely <b>Low Risk</b>	Yes	None	N/A
	Noise	Air/windborne pathway Causing impacts to health and amenity	Surrounding industrial receptors	Refer to Section 3.1	C = Slight L = Unlikely <b>Low Risk</b>	Yes	Condition 21	The Delegated Officer notes there is no change to the original proposed design and construction of the premises with this amendment, which was modelled as meeting the noise emission limits of the EP Noise Regs.  Given the low risk that noise emissions pose, the Delegated Officer is satisfied no further regulatory control is required.
	Unauthorised fires – smoke and fire spread	Air/windborne pathway Causing impacts to health and amenity, surrounding vegetation and fauna	Surrounding industrial receptors Residential receptors Threatened fauna and flora	Refer to Section 3.1	C = Severe L = Unlikely <b>High Risk</b>	Yes	Conditions 1 to 15, 19 and 20	Given the limited number of tyres (6) to be stored at any one time during conditioning, the Delegated Officer considers that any potential fire should be able to be sufficiently suppressed using the fire extinguishers. Combined with the controls proposed by the Works Approval Holder, this will be sufficient to prevent unauthorised fires occurring under most circumstances during commissioning.  As this risk is mitigated by adequate implementation of these Works Approval Holder controls, the Delegated Officer shall enforce these controls via construction, operational and maintenance conditions on the Works Approval, and subsequent Licence.  To mitigate the ongoing risk of fire, the Delegated Officer has retained the delayed commencement of Time Limited Operations until construction and installation of the fire suppression system is compliant with conditions of the Works Approval.
	Contaminated firefighting water	Overland flow and subsurface seepage Causing impacts to surface and groundwater sources	Nearby surface water bodies Pilbara Surface Water Area	Refer to Section 3.1	C = Major L = Unlikely <b>Medium Risk</b>	Yes	Conditions 1 to 10, 12, 17, 18, 20	The Delegated Officer considers the use of fire extinguishers within the dome, upon the concrete pad would generate only small quantities of foam that is unlikely to flow outside the dome structure. Combined with the controls proposed by the Works Approval Holder and the disabling of the internal fire suppression system,

Risk Event					Risk rating <sup>1</sup> C = consequence L = likelihood	Works Approval Holder's controls sufficient?	Conditions <sup>2</sup> of works approval	Justification for additional regulatory controls
Source / Activities	Potential emission	Potential pathways and impact	Receptors	Works Approval Holder's controls				
								<p>will be sufficient to prevent emissions of contaminated firefighting water occurring under most circumstances during commissioning.</p> <p>As this risk is mitigated by adequate implementation of these Works Approval Holder controls, the Delegated Officer shall enforce these controls via construction, operational and maintenance conditions on the Works Approval, and subsequent Licence.</p> <p>To mitigate the ongoing risk of emissions of contaminated firefighting water, the Delegated Officer has retained the delayed commencement of Time Limited Operations until construction and installation of the firewater containment system is compliant with conditions of the Works Approval.</p>
Commissioning of MT Raptor and MT Rex processing equipment	Contaminated stormwater	None	Nearby surface water bodies Pilbara Surface Water Area	Refer to Section 3.1	C = Minor L = Rare <b>Low Risk</b>	Yes	Condition 16	The Delegated Officer considers the storage of tyres and cut rubber pieces within the dome will prevent the generation of contaminated stormwater. No further risk assessment is necessary.
	Hydrocarbon spills during refueling	Overland flow and subsurface seepage Causing impacts to surface and groundwater sources	Nearby surface water bodies Pilbara Surface Water Area	Refer to Section 3.1	C = Slight L = Unlikely <b>Low Risk</b>	Yes	Conditions 1 to 4, 17 and 18	<p>The Delegated Officer considers the controls proposed by the Works Approval Holder are sufficient to prevent hydrocarbon spills occurring under most circumstances during commissioning.</p> <p>As this risk is mitigated by adequate implementation of these Works Approval Holder controls, the Delegated Officer shall enforce these controls via construction, operational and maintenance conditions on the Works Approval, and subsequent Licence.</p>

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

Note 2: Proposed Works Approval Holder's 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
Works Approval Holder was provided with the draft amendment on 07/11/2024	Works Approval Holder advised on 12/11/2024 they had no comments on the draft and waived the remaining comment period.	N/A

## 5. Conclusion

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

### 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 Works Approval as part of the amendment process.

**Table 6: Summary of works approval amendments**

Revised condition no.	Previous condition no.	Proposed amendments
Condition 5	N/A	Addition of condition for commencement of commissioning.
Condition 6 Table 3	N/A	Addition of condition and table for commissioning requirements.
Condition 7	N/A	Addition of condition for due date of Environmental Commissioning Report.
Condition 8	N/A	Addition of condition for requirements of Environmental Commissioning Report.
Condition 9	Condition 5	Amendment of condition for the addition of commencement of time limited operations for those items of infrastructure requiring commissioning.
Condition 10	Condition 6	Amendment of condition wording referencing modified condition numbers.
Condition 11 Table 4	Condition 7 Table 3	Amendment of condition wording referencing modified table number.

Revised condition no.	Previous condition no.	Proposed amendments
Condition 12 Table 5	Condition 8 Table 4	Amendment of condition wording referencing modified table number.
Condition 13 Table 6	Condition 9 Table 5	Amendment of condition wording referencing modified table number.
Condition 17	Condition 13	Amendment of condition wording for the recovery, removal and disposal of an additional spill of fire extinguisher foam.
Condition 22	Condition 18	Amendment of condition wording referencing modified condition numbers.
Condition 23	Condition 19	Amendment of condition wording referencing modified condition numbers.
Condition 25	Condition 21	Amendment of condition wording referencing modified condition numbers.
Definitions Table 8	Definitions Table 7	Amendment of wording referencing modified table number.  Addition of definition for 'Environmental Commissioning Report'.

## 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.