

Decision Report

Application for Licence

Part V Division 3 of the Environmental Protection Act 1986

Licence Number	L9319/2022/1
Applicant ACN	Australian Western Railroad Pty Ltd 39 094 792 275
File number	DER2021/000703
Premises	Aurizon Kwinana Rail Depot 30 Mounsey Road KWINANA BEACH WA 6167
	Legal description - Part of Lot 511 on Deposited Plan 41203 Certificate of Title Volume 2582 Folio 886 As defined by the coordinates in Schedule 1 of the licence
Date of report	29 April 2022

- Proposed Decision Licence granted

A/Manager Wase 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 operation of the premises. As a result of this assessment, licence L9319 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 and overview of premises

On 6 December 2021, the applicant submitted an application for a licence to the department under section 57 of the *Environmental Protection Act 1986* (EP Act).

The application is to seek a licence to temporarily store packaged and bulk solid controlled waste at the premises. The applicant intends to transport controlled waste by rail from their Kwinana depot to their Kalgoorlie depot before disposal at an appropriately licenced facility. Due to occasional train delays and reasonably foreseeable logistical issue, controlled waste may have to be temporarily stored on the premises. Due to the nature of the works, it is difficult to predict what types of waste is to be stored and at what quantity. The premises has authorisation to transport wastes listed under the *Environmental Protection (Controlled Waste) Regulations 2004* and is an authorised dangerous goods sites (licence number DGS012933). The premises is located within the City of Kwinana.

The premises relates to the categories and assessed design capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in licence L9319. 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 licence L9319.

Aurizon is a major national rail freight transport operator that provides bulk freight services to mining and agricultural industries and to the general bulk freight market in Australia.

Aurizon has two main bulk freight depot facilities in Kwinana and Kalgoorlie. Aurizon has a Environmental Management Plan (EMP) that applies to its bulk operations in Western Australia and applies to all instances of environmental management in Aurizon's Western Australian Operations.

The EMP provides details for Aurizon to meet its environmental obligations, community expectations and general environmental duty consistent with the Aurizon Environmental Management Principles. The EMP contains requirements for Operations areas that shall be complied with. These include the required elements of the AS/NZ EMS Standard 14001 and certain other broad operational requirements such as contractor management.

In addition, the Kalgoorlie and Kwinana sites both have a site specific Fire and Emergency Services Emergency Response Guide (FES-ERG).

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 decision report are detailed in Table 1 below. Table 1 also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary.

Emission	Sources	Potential pathways	Proposed controls
Operation			
Dangerous or hazardous waste materials including leachate	Spills of waste from damaged and broken packaging during the storage and handling of controlled waste.	Leaching of materials resulting in overland runoff / migration into surface water, seepage into underlying soil and/or infiltration into groundwater	 All waste to be packaged in closed sealed containers and tanks; All waste to be stored on compacted hardstand; Spill response containers located strategically around the premises; Collapsible spill bunds to be available in the event of a spill; Heavy duty drain covers to be available in the event of a spill; Surface water flows into a series of four bunded, earthen sumps; Trained and experienced personnel; Earth moving equipment available on site and can be used to construct earthen bunds and divert spills away from stormwater; Premises patrolled by security twice a night; Approved emergency response contracts for dangerous goods and hazardous chemicals emergency response; Site Emergency Response Plan in place;

Table 1: Proposed applicant controls

Emission	Sources	Potential pathways	Proposed controls
			 Delay loads arriving to the yard or returning them to the generator for storage where storage at the premises is perceived to exceed 72 hours;
			 Where storage is perceived to be greater than 72 hours, product may be stored on rail wagons;
			 Controlled waste types to only be stored on the premises in a way which maintains safe separation distances of non-compatible materials; and
			• Controlled wastes to be stored with materials of the corresponding waste type, where waste types don't match, a risk assessment will be performed in consultation with the senior environmental manager and dangerous goods specialist to determine the most suitable location.
Contaminated	Stormwater contaminated after coming into contact with waste material on site.	Overland runoff / migration into stormwater	All waste to be packaged in closed
stormwater			sealed containers and tanks;
			 Spill response containers located strategically around the premises;
			Collapsible spill bunds to be available;
			• Trained and experienced personnel;
			 Heavy duty drain covers to be available; and
			 Stormwater flows into a series of four earthen sumps.
Toxic gases / smoke (fire)	Fire on premises	Air/windborne pathway	 Fire and Emergency, Safety Response Plan in place;
			 Controlled waste types to only be stored on the premises in a way which maintains safe separation distances of non-compatible materials;
			• Controlled wastes to be stored with materials of the corresponding waste type, where waste types don't match, a risk assessment will be performed in consultation with the senior environmental manager and dangerous goods specialist to determine the most suitable location.

3.1.2 Receptors

In accordance with the *Guideline: Risk Assessment* (DWER 2020), the Delegated Officer has excluded the applicant's employees, visitors, and contractors 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 a	and envir	ronmental	receptors	and	distance	from	prescrib	ed
activity										

Human receptors	Distance from prescribed activity
Residential premises	1.1 km east of the premises boundary
Industrial area	60 m west of the premises boundary
Multiple groundwater users (non-potable uses)	Approximately 650 and 750 m downgradient of the premises boundary
Environmental receptors	Distance from prescribed activity
Underlying groundwater	Between 3 – 6 m below ground level
Geomorphic wetlands	Approximately 100 m east of the premises boundary
Bushforever site 349	Approximately 200 m east of the premises boundary
Threatened fauna – <i>Isoodon fusciventer</i> (golden bandicoot) and <i>Calyptorhynchus latirostris</i> (Carnaby's cockatoo)	Found within a 1km radius of the premises
Threatened Ecological Community – Tuart woodlands and forests of the Swan Coastal Plain	Found within a 1km radius of the premises
Perth Regional Ecological Linkage	Approximately 400 m east of the premises boundary
Cockburn Sound	Approximately 2.3 km west of the premises

3.1.3 Soil Type

The premises is located within the Quindalup South System. The Quindalup South System is defined by coastal dunes of the Swan Coastal Plain with calcareous deep sands and yellow sands. This soil type typically has a high permeability.

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for each identified emission source 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 applicant 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 applicant'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 applicant's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 3.

Licence L9319 that accompanies this decision report authorises emissions associated with the operation of the premises.

The conditions in the issued licence, as outlined in Table 3 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

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Risk events					Risk rating ¹	Annulissant		
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Potential spills and/or leachate from waste during storage and handling	Dangerous or hazardous waste materials Leachate from dangerous or hazardous waste materials	Overland runoff / migration into stormwater potentially causing ecosystem disturbance or impacting surface water quality Localised contamination of soils Infiltration into groundwater potentially impacting off site groundwater users and causing ecosystem disturbance	Geomorphic wetlands approximately 100 m east Bushforever site approximately 200 m east Underlying groundwater approximately 3 to 6 m bgl Groundwater users approximately 650 m downgradient Threatened fauna within 1 km of the premises	Refer to Section 3.1	C = Moderate L = Unlikely Medium Risk	Ν	Conditions 1, 9, 11, 12 & 13 <u>Conditions 2, 3, 4, 5,</u> <u>6, 7 & 8</u>	Additional control measures have been added to the licence to limit the amount of waste that can be stored on the premises at any one time, outline specific processing and storage criteria required for some controlled waste types and the duration that waste can be stored on site for. In order to prevent leachate, conditions have been included to ensure waste is only accepted in a completely dry state, and are stored in a way to prevent stormwater ingress into the waste vessels. These controls are considered necessary to prevent and/or limit the scale of a potential spill and therefore potential impacts to groundwater, nearby wetlands and Bushforever site 349.
	Asbestos or other hazardous fibres	Air/windborne pathway causing impacts to human health	Residential premises 1.1 km east of the premises Industrial area 60 m west of the premises	Refer to Section 3.1	C = Severe L = Unlikely High Risk	Ν	<u>Condition 1, 4, 5, 6, 7</u> <u>& 8</u>	No controls for asbestos or other hazardous fibres were proposed. Acceptance criteria for the acceptance and storage of asbestos and / or ceramic fibres have been added to the licence to prevent fibres

Table 3: Risk assessment of potential emissions and discharges from the premises during operation

Licence: L9319/2021/1

Risk events					Risk rating ¹	Annlinent		luctification for
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood	controls sufficient?	Conditions ² of licence	additional regulatory controls
								from becoming air borne during the storage and handling of fibrous wastes. The licence holder will submit an amendment at a future time to temporarily store bulk quantities of asbestos / hazardous fibrous waste on the premises.
Stormwater contaminated after coming into contact with waste material on site.	Contaminated stormwater	Overland runoff / migration into stormwater potentially causing ecosystem disturbance or impacting surface water quality Localised contamination of soils Infiltration into groundwater potentially impacting off site groundwater users and causing ecosystem disturbance	Geomorphic wetlands approximately 100 m east Bushforever site approximately 200 m east Underlying groundwater approximately 3 to 6 m bgl Groundwater users approximately 650 m downgradient Threatened fauna within 1 km of the premises	Refer to Section 3.1	C = Moderate L = Unlikely Medium Risk	Y	Conditions 1, 9, 11, 12 & 13 <u>Conditions 2, 3, 4, 5,</u> <u>6, 7 & 8</u>	Additional control measures have been added to the licence to limit the amount of waste that can be stored on the premises at any one time, outline specific processing and storage criteria required for some controlled waste types and the duration that waste can be stored on site for. In order to prevent contaminated stormwater, conditions have been included to ensure waste is stored in a way to prevent stormwater ingress into the waste vessels. These controls are considered necessary to prevent stormwater coming into contact with solid waste materials on the premises.

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Risk events					Risk rating ¹	Applicant		luctification for
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood	controls sufficient?	Conditions ² of licence	additional regulatory controls
Fire on premises	Toxic gases / smoke (fire)	Air/windborne pathway causing impacts to human health and amenity.	Residents approximately 1.2 km east Surrounding industry approximately 60 m west	Refer to Section 3.1	C = Moderate L = Unlikely Medium Risk	Y	Conditions 14 & 15	Conditions 14 and 15 have been added as standard conditions.
	Fire-fighting water	Overland runoff / migration into stormwater potentially causing ecosystem disturbance or impacting surface water quality Localised contamination of soils Infiltration into groundwater potentially impacting off site groundwater users and causing ecosystem disturbance	Geomorphic wetlands approximately 100 m east Bushforever site approximately 200 m east Underlying groundwater approximately 3 to 6 m bgl Groundwater users approximately 650 m downgradient Threatened fauna within 1 km of the premises	Refer to Section 3.1	C = Major L = Unlikely Medium Risk	Y	Conditions 14 & 15	Conditions 14 and 15 have been added as standard conditions. The Delegated Officer considers the Licence Holder's Site Emergency Response Plan adequate for managing risk to the environment in the unlikely incidence of an emergency event.

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.

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4. Consultation

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

Table 4: Consultation

Consultation method	Comments received	Department response
Application advertised on the department's website on 3 March 2022	None received	N/A
Local Government Authority advised of proposal on 3 March 2022	None received	N/A
Applicant was provided with draft documents on 19 April 2022	Comments were received from Aurizon on 22/04/2022. A summary of the applicants comments are provided in Appendix 1: Summary of applicant's comments on risk assessment and draft conditions.	Refer to Appendix 1: Summary of applicant's comments on risk assessment and draft conditions

5. Conclusion

Based on the assessment in this decision report, the delegated officer has determined that a licence will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements. It is up to the Licence Holder to ensure all other necessary licences are in place before commencing operations at the site.

References

- 1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
- 2. Department of Fire and Emergency Services 2020, *Guidance Note: GN02 Bulk Storage* of Rubber Tyres Including Shredded and Crumbed Tyres, Perth, Western Australia
- 3. Department of Health (DoH) 2021, *Code of Practice for Clinical and Related Waste Management*, Perth, Western Australia
- 4. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
- 5. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
- 6. Heads of EPAs Australia and New Zealand (HEPA) 2020, *PFAS National Environment Management Plan Version 2.0*

Appendix 1: Summary of applicant's comments on risk assessment and draft conditions

Condition	Summary of applicant's comment	Department's response
Assessed design capacity The Delegate Officer wishes the applicant to confirm if 10,000 tonnes per annual year is sufficient	At this stage it is adequate.	Noted.
Condition 3 The licence holder must not store more than a total of 300 tonnes of waste at the premises at any one time.	We believe 300 tonnes would give us minimal contingency for the commercial task we are required to deliver now and in the future. We would like to increase the 300 tonnes storage capacity to the maximum production design capacity in the Env Protection regs of 500 tonnes or more. Our preference is to have the maximum.	The risk assessment is based on the likelihood and consequence of a risk event occurring. 300 tonnes equates to approximately 15 containers and 500 tonnes equates to approximately 27 containers. Due to the nature of the rail depot, there is some uncertainty regarding the types of waste to be stored on site, in what quantities, when and how long for. The more waste material that is stored on site at any one time, the greater the risk of a spill event or a fire on site. Due to the uncertainty surrounding waste storage on site, the Delegated Officer considers the risk of storing 500 tonnes of waste material on site at any one time as unacceptable at this stage. The licence holder may wish to apply for an amendment in the future after operations have commenced when there is greater certainty about the types of wastes being stored, the quantities of waste, when and for how long. The Delegated Officer has determined that Condition 3 will not change and only 300 tonnes of waste may be stored on site at any one time.

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Condition	Summary of applicant's comment	Department's response
Condition 8 The licence holder must ensure that waste does not remain on the premises for more than 72 hours from arrival.	The 72 hr limit on storage is more a transit requirement. Are we able to remove the limit all together ? As we discussed at site, we will always endeavour to transport controlled waste from the Depot as soon as possible but from time-to-time due to logistics chain breakdowns or track closures etc we may need to store products for longer periods. The recent case of the closure of the main east-west rail route on the Nullarbor is an example where it took at least a fortnight before the track was repaired following flood damage.	As per the application, the risk assessment is based on the facility being for temporary storage (up to 72 hours) only. Due to the nature of the rail depot, there is some uncertainty regarding the types of waste to be stored on site, in what quantities, when and how long for. For a short to long term storage facility, a new risk assessment would need to be undertaken and additional information may be required. Due to this, the Delegated Officer has determined that the 72 hour limit will not be removed from the licence conditions. The licence holder may apply for an amendment including additional controls for the short term and / or long term storage of wastes on site.
Condition 6 – Table 2 No more than 50 kg [of asbestos] to be stored on site at any one time.	Is the 50kgs limit on Asbestos an arbitrary volume or based on industry guidance ? It may limit our ability to complete tasks in the future. Can the limit be increased? Our waste generator has advised that recent asbestos tasks undertaken have been up to 20 tonnes in total. We would never look to store that much but we believe 50 kg is inadequate.	No controls for asbestos were included within the application. The Delegated Officer considers this limit as the maximum limit we can apply with the information provided to us. The licence holder may wish to apply for an amendment in the future including information on the form of asbestos, expected quantities, concentrations (if applicable) and any other on site controls.

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Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)						
Application type						
Works approval						
		Relevant works approval number:			None	
		Has the works approva with?	al been complied	Yes [Yes 🗆 No 🗆	
Licence		Has time limited operations under the works approval demonstrated acceptable operations?		Yes 🗆 No 🗆 N/A 🗆		
		Environmental Compliance Report / Critical Containment Infrastructure Report submitted?		Yes 🗆 No 🗆		
		Date report received:	6 December 2021			
Renewal		Current licence number:				
Amendment to works approval		Current works approval number:				
Amondmont to license		Current licence number:				
Amendment to licence		Relevant works approval number:			N/A	
Registration		Current works approval number:	None			
Date application received						
Applicant and premises details						
Applicant name/s (full legal name/s)		Aurizon Operations Pty Ltd				
Premises name	Aurizon Kwinana Rail Depot					
Premises location		30 Mounsey Road Kwinana Beach				
Local Government Authority		City of Kwinana				
Application documents						
HPCM file reference number:		DER2018/001042-6~72				
Key application documents (additional to application form):		DG Licence FESERG Site Emergency Response Plan Power of Attorney CoT Stormwater Drainage Strategy				
Scope of application/assessment			ыассуу			

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)

Τ

Summary of proposed activities or changes to existing operations.	Temporary storage of various categories of controlled waste packages. Controlled waste intends to be loaded directly from trucks onto trains for transportation to Kalgoorlie, however, occasionally due to logistical issues, waste will need to remain on site at the train depot for up to 72 hours.
	site at the train depot for up to 72 hours.

Category number/s (activities that cause the premises to become prescribed premises)

Table 1: Prescribed premises categories

Prescribed premises category and description	Proposed production or design capacity	Proposed changes to the production or design capacity (amendments only)
Category 62: Solid waste depot	More than 5,000 tonnes per year	<i>Is there a proposed change to the previously assessed production or design capacity?</i>

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 □ No ⊠	Referral decision No: Managed under Part V □ Assessed under Part IV □	
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes □ No ⊠	Ministerial statement No: EPA Report No:	
Has the proposal been referred and/or assessed under the EPBC Act?	Yes 🗆 No 🖂	Reference No:	
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes ⊠ No □	Certificate of title ⊠ General lease □ Expiry: Mining lease / tenement □ Expiry: Other evidence □ Expiry:	
Has the applicant obtained all relevant planning approvals?	Yes □ No □ N/A ⊠	Approval: Expiry date: If N/A explain why? Activities do not change the level of planning required.	

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)			
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes 🗆 No 🛛	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 🗆 No 🖂	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 🗆 No 🖂	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 □ No ⊠	Name: N/A Type: N/A Has Regulatory Services (Water) been consulted? Yes □ No □ N/A ⊠ Regional office: N/A	
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes □ No ⊠	Name: N/A Priority: N/A Are the proposed activities/ landuse compatible with the PDWSA (refer to <u>WQPN 25</u>)? Yes □ No □ N/A ⊠	
Is the Premises subject to any other Acts or subsidiary regulations (e.g. Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx)	Yes ⊠ No □	Environmental Protection (Controlled Waste) Regulations 2004 Dangerous Goods Safety Act 2004	
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes ⊠ No □	Environmental Protection (Kwinana) (Atmospheric Wastes) Policy 1999 and Environmental Protection (Kwinana) (Atmospheric Wastes) Regulations 1992 State Environmental (Cockburn Sound) 2015 Policy Area	
Is the Premises subject to any EPP requirements?	Yes □ No ⊠		

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)			
Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i> ?	Yes ⊠ No □	Classification: contaminated – remediation required (C–RR) Date of classification: 26/09/2019	