Decision Report

Application for Works Approval

Division 3, Part V Environmental Protection Act 1986

Works Approval Number	W6186/2018/1
Applicant	Hy-Tec Industries Pty Ltd
ACN	070 100 702
File Number	DER2018/001548
Premises	Hy-Tec Industries Kewdale 5 Casella Place Kewdale WA 6105 Legal description - Lot 133 on Deposited Plan 31408 Certificate of Title Volume 2519 Folio 365
Date of Report	3 May 2019

Status of Report

Final

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1. Definitions of terms and acronyms

In this Decision Report, the terms in Table 1 have the meanings defined.

Table 1: Definitions

Term	Definition		
AACR	Annual Audit Compliance Report		
ACN	Australian Company Number		
AER	Annual Environment Report		
Applicant	Hy-Tec Industries Pty Ltd		
Category	Categories of Prescribed Premises as set out in Schedule 1 of the EP Regulations		
CS Act	Contaminated Sites Act 2003		
Decision Report	refers to this document.		
Delegated Officer	an officer under section 20 of the EP Act.		
Department	means the department established under section 35 of the <i>Public Sector</i> <i>Management Act 1994</i> and designated as responsible for the administration of Part V, Division 3 of the EP Act.		
DWER	Department of Water and Environmental Regulation		
EPA	Environmental Protection Authority		
EP Act	Environmental Protection Act 1986		
EP Regulations	Environmental Protection Regulations 1987		
CB Regulations	Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998		
m³	cubic metres		
Noise Regulations	Environmental Protection (Noise) Regulations 1997 (WA)		
PM	Particulate Matter		
PM ₁₀	used to describe particulate matter that is smaller than 10 microns $(\boldsymbol{\mu}\boldsymbol{m})$ in diameter		
Prescribed Premises	has the same meaning given to that term under the EP Act.		
Premises	refers to the premises to which this Decision Report applies, as specified at the front of this Decision Report		
Primary Activities	as defined in Schedule 2 of the Revised Licence		
Risk Event	As described in Guidance Statement: Risk Assessment		
µg/m³	micrograms per cubic metre		
UD Regulations	Environmental Protection (Unauthorised Discharges) Regulations 2004		

2. Purpose and scope of assessment

Hy-Tec Industries Pty Ltd (the Applicant) lodged a Works Approval application on 19 October 2018, to construct a concrete batching plant at Lot 133 (No 5) Casella Place Kewdale Western Australia. Table 2 lists the documents submitted during the assessment process.

 Table 2: Documents and information submitted during the assessment process

Document/information description	Date received	
Golder Application for Works Approval Reference Number 1894007-003-L-RevO	19 October 2018	

3. Background

The Applicant proposes to construct and subsequently operate a concrete a concrete batching plant at Lot 133 Casella Place Kewdale WA. The site is located within the "industrial zone" of the City of Belmont. The design life of the premises is 30 years.

Table 3 lists the prescribed premises category that has been applied for.

Table 3: Prescribed Premises Category

Classification of Premises	Description	Applied Premises production or design capacity or throughput
Category 77	Concrete batching or cement products manufacturing: premises on which cement products or concrete are manufactured for use at places or premises other than those premises.	235,000 tonnes per year

4. Overview of Premises

4.1 **Operational aspects**

The Works Approval application is for the construction of a concrete batching plant. The Applicant has sought approval to operate 24 hours a day, seven days a week however it is expected that peak operating periods would be between 5am and 6pm Monday to Friday and Saturday mornings.

The Applicant applied initially for two options for the concrete batching plant: a fixed plant and mobile plant. However following the further information from the Applicant, by email of 21 March 2019, the decision was made by the Applicant to build the fixed plant. The fixed plant design has a maximum production rate of 120 m³/hour and 100,000 m³ (approximately 235,000 tonnes) annual production.

Raw materials of fine (sand) and coarse (stone) aggregates are delivered via covered trucks and unloaded into separate storage bays. The raw materials are transferred by front end loaders into hoppers and conveyors. Cement is delivered in sealed tankers and transferred pneumatically into a sealed overhead storage silo. The exhaust air from the silo is vented through a baghouse dust collector. The raw materials are then transferred in their correct quantities into concrete agitator trucks located directly below the concrete batch plant load hopper. An overview of the process is shown in Figure 1.



Figure 1: Process flow chart- concrete batching

4.2 Infrastructure

The infrastructure, as it relates to Category 77 activities, is detailed in Table 4 and with reference to the site plan (Appendix 1).

Table 4: Hy-Tec facility Category 77 infrastructure

	Infrastructure	Specifications
1	Sand and aggregate storage area and bins	14 x three-sided storage areas with sprinklers fitted
2	Conveyor from bins to batch tower	Made of steel, enclosed on three sides
3	Batching tower where inputs (aggregate, cement, other cementitious products, wet admixtures and other dry additives) are weighed and discharged into the concrete agitator trucks	Maximum capacity of 120 m ³ of concrete per hour
4	Overhead storage silos	2 silos of 85m ³ each 2 silos of 125m ³ each Fitted with bag house filter Stack from bag house filter minimal height of 40m AHD.
5	Agitator truck loading bay	Fitted with air extraction to bag house filter that has air outlet to 1m above ground
6	Covered liquid additives storage area	The additives will be contained in tanks located within bunds that are sized for 110% of the largest tank
7	Return cement and washout facilities	Wash water collected via a settlement wedge pit and reused in process

4.3 **Contaminated sites**

The site is classified as "remediated for restricted use" under the *Contaminated Sites Act 2003* (CS Act).

4.3.1 Planning approvals

The Applicant applied on 16 November 2018 for a Planning approval with the City of Belmont and Western Australian Planning Commission (WAPC). On 11 March 2019 a Planning Approval with conditions was issued to the Applicant for the fixed concrete batching plant (DAP/18/01532).

5. Applicant's preliminary noise assessment

A preliminary noise assessment has been undertaken using sound power levels derived from the US Department of Transportation Federal Highway Administration's Roadway Construction Noise Model (RCNM). A worst case scenario of all equipment and plant running operating 24 hours a day, all equipment and plant operating simultaneously and no separation distance between equipment and plant noise sources was used for the assessment. The Applicant's conclusion was that noise from the Premises would be compliant with the *Environmental Protection (Noise) Regulations 1997*.

6. Consultation

The Application was advertised on 21 January 2019. No comments were received on the application.

7. Location and siting

7.1 Siting context

The Premises are located within the Kewdale Industrial Zone of the Kewdale Industrial Estate in the City of Belmont. The Kewdale Industrial Estate, located directly south of Perth Airport, is the primary industrial hub of WA. It is a significant transport and logistics hub in WA and hosts a range of industries including steel fabrication, mining, energy and transport companies and chemical manufacturers.

7.2 **Residential and sensitive Premises**

The distances to residential and sensitive receptors are detailed in Table 5.

Table 5: Receptors and distance from prescribed premises

Sensitive Land Uses	Distance from prescribed premises		
Nearest residential premises in Forrestfield	1.7 km south-east.		
Perth Airport	270m north/north-east		

7.3 Specified ecosystems

There are no specified ecosystems, environmentally sensitive areas (ESAs), Threatened Ecological Communities (TECs), Threatened Priority Flora or Fauna or Native Vegetation within the premises. The distances to specified ecosystems are shown in Table 6. Table 6 also identifies the distances to other relevant ecosystem values which do not fit the definition of a specified ecosystem.

Table 6: Specified ecosystems

Specified ecosystems	Distance from the Premises		
Threatened fauna			
Isoodon fusciventer (Quenda)	250m north, 580m south east, 730m south south east, 1.4km south east		
Dasyurus geoffroii (Western quoll)	920m south west		
Calyptorynchus latirostris (Carnaby's black cockatoo)	1.3km south east		
Pseudemydura umbrina (Western Swamp Tortoise)	720m east, 430m north west		

7.4 Groundwater and water sources

The site is not located in a public drinking water source area. It is within the Canning River Surface Water Management Area. The depth to groundwater is shown in Table 7.

Table 7: Groundwater and water sources

Groundwater and water sources	Distance from Premises	Environmental value		
Groundwater	Groundwater encountered at 4.7m	Groundwater within 2m of the water table is not suitable for use without treatment for the presence of hydrocarbon (such as petrol or diesel) contamination. The site is classified "remediated- for restricted use"		

7.5 Soil type

Table 8 details soil types and characteristics relevant to the assessment.

Table 8: Soil and sub-soil characteristics

Soil and sub soil	Environmental Value
Soil type classification	Bassendean Sand: quartz sand (dunes) (Qpb)
Acid sulfate soil risk	Moderate to low risk of Acid Sulfate soils occurring within 3m of the surface but a high to moderate risk of Acid Sulfate soils beyond 3m of the surface.

8. Risk assessment

8.1 Determination of emission, pathway and receptor

In undertaking its risk assessment, DWER will identify all potential emissions pathways and potential receptors to establish whether there is a Risk Event which requires detailed risk assessment.

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. Where there is no actual or likely pathway and/or no receptor, the emission will be screened out and will not be considered as a Risk Event. In addition, where an emission has an actual or likely pathway and a receptor which may be adversely impacted, but that emission is regulated through other mechanisms such as Part IV of the EP Act, that emission will not be risk assessed further and will be screened out through Table 9 and Table 10.

The identification of the sources, pathways and receptors to determine Risk Events are set out in Tables 9 and 10.

Risk Events				Continue to	Reasoning	
Sources/Activities	Potential emissions	Potential sensitive receptors	Potential pathway	Potential adverse impacts	assessment	
Construction of new infrastructure	Noise	No dwellings in proximity (refer to Table 5)	Air/wind dispersion	Amenity impacts	No	The Delegated Officer considers that the separation distance between the plant and potential sensitive receptors is sufficiently large for there to be minimal
	Dust	No dwellings in proximity (refer to Table 5)	Air/wind dispersion	Amenity impacts	No	impacts. Construction will occur over a short period.

Table 9: Identification of emissions, pathway and receptors during construction

Risk Events						Continue to	Reasoning
Sources/Activities		Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts	assessment	
Concrete batching	Baghouses	Particulates	No dwellings in proximity (refer to Table 5)	Air/wind dispersion	Amenity or health impacts not expected.	No	The Delegated Officer considers that the significant separation distance between the source and receptors will mitigate impact from emissions sufficiently to not be causing a negative impact. The premises is located within an industrial area. <i>Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998</i> apply with sufficient controls for managing environmental impact. Proposed works seem to be compliant with the <i>Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations</i> 1998
	Vehicles movement/operati on (on and off site)	Dust and exhaust emissions	No dwellings in proximity (refer to Table 5)	Air/wind dispersion	Amenity or health impacts not expected.	No	
	Accumulated material on the outside of trucks	Dust emissions	No dwellings in proximity (refer to Table 5)	Air/wind dispersion	Amenity or health impacts not expected.	No	
	Material loading, unloading, transport and storage	Dust	No dwellings in proximity (refer to Table 5)	Air/wind dispersion	Amenity or health impacts not expected.	No	
	Accidental spillage of raw materials from conveyors, hoppers and storage bins	Dust	No dwellings in proximity (refer to Table 5)	Air/wind dispersion	Amenity or health impacts not expected.	No	
	Windblown dust from stockpiles stored outside (if required), sand and aggregate areas, and exposed/cleared areas on-site	Dust	No dwellings in proximity (refer to Table 5)	Air/wind dispersion	Amenity or health impacts not expected.	No	

Table 10: Identification of emissions, pathway and receptors during operation

Risk Events						Continue to	Reasoning
Sources/Activities		Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts	assessment	
	Pollution control equipment malfunctioning	Dust and exhaust emissions	No dwellings in proximity (refer to Table 5)	Air/wind dispersion	Amenity or health impacts not expected.	No	
Concrete batching	Concrete batching plant, including conveyor belts, hydraulic pumps, baghouse fan etc. Material handling and delivery into bunkers and hoppers Truck engines, either idling in a stationary position or during acceleration Reverse alarms of trucks Front end loader	Noise	No dwellings in proximity (refer to Table 5)	Air/wind dispersion	Amenity or health impacts not expected.	No	Information provided by the Applicant indicates that noise from the premises is compliant with the <i>Environmental</i> <i>Protection (Noise) Regulations 1997.</i>
	alarms	Noise	No residence or sensitive receptors in proximity	Air/wind dispersion	Amenity or health impacts not expected.	No	
Stormwater/ groundwater	Raw material transport on site	Contaminants in the sediment	Stormwater/groundwat er in proximity	Land contour and through soil profile into groundwater	Contamination of stormwater/ground water from: - contaminated	No	Managed sufficiently under the Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998

Risk Events						Continue to	Reasoning
Sources/Activities		Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts	assessment	
		Emissions to stormwater from: - excavation - material transport works; and - stockpiled alkaline material			sediment discharge - alkaline material such as cement		
	Hydrocarbons/mat erial spills	Hydraulic leaks from vehicles	Stormwater and groundwater in proximity	Land contour and through soil profile into groundwater	Contamination of stormwater/ground water	No	Premises has hardstand Environmental Protection (Unauthorised discharges) Regulations 2004 apply

9. Regulatory controls

9.1 Works Approval controls

9.1.1 Infrastructure

The Works Approval conditions will include that the Applicant should construct the infrastructure as per the Application.

10. Determination of Works Approval conditions

The conditions in the Works Approval to the Applicant have been determined in accordance with the DER's *Guidance Statement: Setting Conditions*.

The duration of the Works Approval is for three years, being the standard time allocation within which works should be completed.

Table 11 provides a summary of the conditions to be applied to this Works Approval.

Condition Ref	Grounds		
Infrastructure and Equipment Condition 1	This condition is valid, risk- based and contains appropriate controls		
Compliance report Conditions 3 and 4	The conditions are valid and are necessary requirements to ensure compliance		
Information and Reports Conditions 5, 6, 7 and 8	These conditions are valid and are necessary for administration and reporting requirements to ensure compliance		

Table 11: Summary of conditions to be applied

DWER notes that it may review the appropriateness and adequacy of controls at any time and that, following a review, DWER may initiate amendments to the Works Approval under the EP Act.

11. Applicant's comments

The draft Works Approval and draft Decision report was send to the Applicant for comment on 25 February 2019 and included a request for additional information to complete these documents. The Applicant responded on 29 April 2019 with the additional information and no further comments on the draft documents.

12. Conclusion

This assessment of the risks of activities on the Premises has been undertaken with due consideration of a number of factors, including the documents and policies specified in this Decision Report (summarised in Appendix 1).

Based on this assessment, it has been determined that the Works Approval will be granted subject to conditions commensurate to the risk as outlined in this document.

Paul Byrnes Manager, Process Industries Delegated Officer under section 20 of the *Environmental Protection Act 1986*

Appendix 1: Key documents

	Document title	In text ref	Availability
1.	Golder Application for Works Approval Reference Number 1894007-003-L-RevO	Application	DER Records A1730996
2.	Email from Golder dated 21 March 2019, confirming planning approval and that a fixed plant was going to be constructed	-	DER Records A1785694
3.	Email from Golder dated 29 April 2019 with comments on draft documents and with the additional information as requested.	-	DER Records A1785545
4.	Contaminated Sites Act 2003	WA 2003	Accessed at: https://www.legislation.wa.gov.au/legislatio n/statutes.nsf/subsif_e.html
5.	Environmental Protection Regulations 1987	WA 1987	Accessed at: https://www.legislation.wa.gov.au/legislatio n/statutes.nsf/subsif_e.html
6.	Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998	CB Regs	Accessed at https://www.legislation.wa.gov.au/legislatio n/statutes.nsf/subsif_e.html
7.	Guidance Statement: Regulatory Principles (July 2015)	NA	Accessed at <u>www.dwer.wa.gov.au</u>
8.	Guidance Statement: Setting Conditions (October 2015)	NA	
9.	Guidance Statement: Decision Making (February 2017)	NA	
10.	Guidance Statement: Risk Assessments (February 2017)	NA	
11.	Environmental Protection (Noise) Regulations 1997	NA	Accessed at https://www.legislation.wa.gov.au/legislatio n/statutes.nsf/subsif_e.html
12.	Environmental Protection (Unauthorised Discharges) Regulations 2004	NA	Accessed at https://www.legislation.wa.gov.au/legislatio n/statutes.nsf/subsif_e.html

Attachment 1: Site plan



(provided by Applicant)

Attachment 2: Premises boundary

The boundary of the Premises is shown in yellow in the figure below.

