



## Application for Works Approval

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

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<b>Works Approval Number</b>	W6632/2021/1
<b>Applicant</b>	Hanson Construction Materials Pty Ltd
<b>ACN</b>	009 679 734
<b>File number</b>	DWER2021/000698
<b>Premises</b>	Hanson Concrete Albany 100 John Street MILPARA WA 6330  Legal description Lot 21 on Deposited Plan 69278 As defined by the premises maps attached to the issued works approval
<b>Date of report</b>	13 April 2022
<b>Decision</b>	Works approval granted

**Fiona Roser**  
**Senior Environmental Officer, Industry Regulation**  
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 W6632/2021/1 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 and overview of premises

#### Background

On 1 December 2021, the applicant applied for a works approval under section 54 of the *Environmental Protection Act 1986* (EP Act) to install a new cement silo at its existing concrete batching plant in Albany. The premises is located at 100 John Street, Milpara, which is situated within an industrial area.

The premises relates to prescribed premises category 77, concrete batching and cement products manufacture, with an assessed production capacity of 80 tonnes per hour under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in works approval W6632/2021/1. 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 W6632/2021/1.

#### Proposed Works

The proposed works involve installation of an additional cement and supplementary cementitious material (SCM) storage silo within the existing concrete batching plant operation. The key purpose of the silo is to enable the use of SCM (flyash or granulated blast furnace slag) as a cement replacement product in the production of ready mix concrete. SCMs are commonly used in concrete manufacturing and enable a reduction in the use of cement, which can alter concrete performance and reduce the net carbon footprint of the production of concrete.

The new silo will not change the production capacity or throughput at the premises.

Key aspects of the proposal include:

- installing a new cement storage silo (90 tonnes storage capacity), fitted with a venting and extraction dust collector;
- installing a new silo monitoring system; and
- connecting the new silo into the existing air systems.

A concrete batching plant has been registered at the site for more than 27 years (R460/1994/1). Upon construction of the silo, it may commence operation under the existing registration and must comply with the *Environmental Protection (Concrete Batching and Cement Products Manufacturing) Regulations 1998* (Concrete Batching Regulations).

## 2.3 Other relevant approvals

### 2.3.1 Planning approvals

The City of Albany granted planning approval PA107641 on 22 March 2022.

## 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 construction and 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.

**Table 1: Proposed applicant controls**

Emission	Sources	Potential pathways	Proposed controls
<b>Construction</b>			
Dust	Construction of pad and installation of silo	Air / windborne pathway	Short term (6 months) construction work conducted between 7 am and 6 pm Water down roadways and stockpiles of waste as required.
Noise		Air / windborne pathway	Day time operation and separation distance
<b>Operation</b>			
Dust	Silo storage of cementitious material	Air / windborne pathway	The new silo will include: <ul style="list-style-type: none"> <li>• a relief valve which is piped to a weigh hopper or outlet within 1 m of the ground to prevent overfilling;</li> <li>• a level indicator with an audible high level alarm which sounds if cement reaches 0.6 m below the inlet to the silo's air cleaning system;</li> <li>• a test circuit which indicates whether the level indicator and alarm are operating correctly;</li> <li>• a fabric filter dust collector (baghouse) designed to reduce dust emissions to less than 50 milligrams of particulate matter per cubic metre;</li> <li>• the baghouse is fitted with an automatic</li> </ul>

Emission	Sources	Potential pathways	Proposed controls
			reverse pulse air cleaning system that initiates cleaning at the end of each cleaning cycle; <ul style="list-style-type: none"> <li>• a pressure differential devise to detect blockages and holes in the filter; and</li> <li>• ducting which discharges air from the cement silo air cleaning system to within 1 m of the ground.</li> </ul> The silo will be operated in accordance with the Concrete Batching Regulations.
Contaminated water runoff	Contamination from spills of SCMs.	Direct discharge to land and overland flow impacting ecosystem health	Bund between silo supports to capture spills of SCM. Potentially contaminated water is recycled through the production of concrete.

### 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 and **Error! Reference source not found.** below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises (*Guideline: Environmental Siting* (DWER 2020)).

**Table 2: Sensitive human and environmental receptors and distance from prescribed activity**

Human receptors	Distance from prescribed activity
Residential Premises Zoned Residential in City of Albany Local Planning Scheme No. 1	boundary of residence 380 metres west northwest of proposed silo

## 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 works approval 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.

Works approval W6632 that accompanies this decision report authorises construction. The conditions in the issued works approval, as outlined in Table 3 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

Upon completion of the works, they may be operated under registration R460/1994/1 in compliance with the *Environmental Protection (Concrete Batching and Cement Products Manufacturing) Regulations 1998*. A risk assessment for the operational phase has been included in this decision report.

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

Risk events					Risk rating <sup>1</sup> C = consequence L = likelihood	Applicant controls sufficient?	Conditions <sup>2</sup> of works approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
<b>Construction</b>								
Construction of footings, installation and connection of new sils	Dust	Air / windborne pathway causing impacts to health and amenity	Residences 470 metres west northwest	Refer to Section 3.1	C = Slight L = Unlikely <b>Low Risk</b>	Y	Condition 1	N/A
	Noise			Refer to Section 3.1	C = Slight L = Unlikely <b>Low Risk</b>	Y	Condition 1	N/A
<b>Operation</b>								
Operation of Silo	Dust	Air / windborne pathway causing impacts to health and amenity	Residences 470 metres west northwest	Refer to Section 3.1	C = Minor L = Rare <b>Low Risk</b>	Y	Condition 1	Condition 1 of the works approval will impose infrastructure controls to ensure compliance with the Concrete Batching Regulations during ongoing operations.
	Contaminated stormwater	Direct discharge to land and overland flow impacting ecosystem health	Land and Local Government Authority stormwater drains.		C = Slight L = Unlikely <b>Low Risk</b>			

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 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 24 December 2021	None received	N/A
Applicant was provided with draft documents on 11/4/2022	Applicant replied 12/4/2022 and had no comment	N/A

## 5. Decision

The delegated officer has determined the construction and operation of the additional silo at the batching plant will not significantly add to the risk of adverse impacts from emissions from the site. In making this decision the delegated officer has considered:

- the production at the site is determined by orders and will not increase as a result of the silo being installed; and
- the premise will continue to operate under the *Environmental Protection (Concrete Batching and Cement Products Manufacturing) Regulations 1998*.

## 6. 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.

## References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.



## Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY		
<b>Application type</b>		
Works approval	<input checked="" type="checkbox"/>	W6632/2021/1
<b>Applicant and Premises details</b>		
Applicant name/s (full legal name/s)	Hanson Construction Material Pty Ltd	
Premises name	Albany Concrete Batching Plant	
Premises location	Lot 21 on Diagram 69278	
Local Government Authority	City of Albany	
<b>Application documents</b>		
HPCM file reference number:	DWERDT533272	
Key application documents (additional to application form):	Elevation plan of new silo	
<b>Scope of application/assessment</b>		
Summary of proposed activities or changes to existing operations.	Works approval Installation of new (additional) 90 tonne silo for cement and supplementary cementitious material. The works include <ul style="list-style-type: none"> <li>• New silo top filter system</li> <li>• New silo monitoring system</li> <li>• Modified load hopper</li> <li>• New footings for silo</li> <li>• New concrete bund</li> <li>• New cladding to load bay</li> </ul>	
<b>Category number/s (activities that cause the premises to become prescribed premises)</b>		
<b>Table 1: Prescribed premises categories</b>		
<b>Prescribed premises category and description</b>	<b>Assessed production or design capacity</b>	<b>Proposed changes to the production or design capacity</b>
Category 77: Concrete Batching and cement products manufacture	80 m <sup>3</sup> /hr production is on an as needed basis when orders come in.	NA new silo will not change production capacity
<b>Legislative context and other approvals</b>		
Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial statement No: EPA Report No:

Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Reference No:
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Certificate of title <input type="checkbox"/> General lease <input checked="" type="checkbox"/> Expiry: 30/6/2034
Has the applicant obtained all relevant planning approvals?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>	A Development Application has been submitted and is under assessment by the City of Albany
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	No clearing is proposed.
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Licence / permit not required.
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: N/A
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: N/A
Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx</i> )	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<i>Environmental Protection (Concrete Batching and Cement Products Manufacturing) Regulations 1997</i>
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i> ?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Date of classification: N/A