



Application for licence amendment

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

Licence number	L8121/2003/2
Licence holder	BGC (Australia) Pty Ltd
ACN	005 736 005
File number	DER2012/004657
Premises	<p>BGC Cement 24 Beard Street NAVAL BASE WA 6165</p> <p>Legal description – Lot 32 on Diagram 44929, Lot 33 on Diagram 55120, Lot 144 on Plan 3638 and Lot 145 on Plan 3638</p>
Date of report	25 January 2021
Decision	Revised licence granted

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1. Decision summary

Licence L8121 is held by BGC (Australia) Pty Ltd (licence holder) for BCG Cement, located at Beard Street, Naval Base WA (the premises).

This report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges during the operation of the premises. As a result of this assessment, revised licence L8121 has been granted.

The revised licence supersedes the existing licence previously granted in relation to the premises. The revised licence has been granted in a new format with existing conditions being transferred, but not reassessed, to the new format.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this report, the delegated officer has considered and given due regard to the department's regulatory framework and relevant policy documents which are available at <https://dwer.wa.gov.au/regulatory-documents>.

The delegated officer has assessed the environmental risk of the amendment, as summarised in section 2.2 of this report and has not re-assessed the environmental risk of the existing infrastructure and activities within the premises. The delegated officer also has taken the opportunity to update the licence to match the latest template.

2.2 Application summary

On 4 August 2020, the licence holder applied to amend licence L8121 under sections 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The licence holder proposes to install five new silos for product blending within the premises. Each silo will have an emission point and a bag filter to control dust emissions from these emission points. The amendment does not change the overall production capacity of the premises.

The amendment includes the addition of a blending plant together with a high-early (HE) cement silo. The infrastructure that is applied for in the amendment is listed in Table 1 and shown in Figure 1 and Figure 2.

Table 1: Environmentally relevant infrastructure to be constructed for blending plant and HE silo

Proposed infrastructure or equipment	Environmental specifications	Location
Blending plant: 2 x 100 tonnes silos blender and associated conveyor belts and bucket elevators 2 x 300 tonnes silo (blended product)	Each silo fitted with a baghouse filter atop, capable of reducing particulate emissions to below 50 mg/m ³	Figure 1
1 x 500 tonnes HE silo	Baghouse filter atop, capable of reducing particulate emissions to below 50 mg/m ³	Figure 2
4 x Loading spouts	Baghouse filters, capable of reducing particulate emissions to below 50 mg/m ³	Figure 1

The licence holder proposes to mill the HE cement and convey it via weigh screws into a bucket elevator to the HE cement silo. The HE cement is then loaded through a spout into bulk road tankers for use off-site.

The blended mix of general purpose cement and slag is to be blended in proximity of the two new silos before being conveyed to one of two 'finished product' silos that can discharge via loading spouts into bulk road tankers for use off-site.

Due to the small-scale work required during construction of the silos the licence holder does not expect any emissions or discharges from the site during construction phase of the project. During operations emissions of dust will be managed in the same manner as the existing similar infrastructure currently licenced under L8121/2003/2 with the use of appropriate bag filters, pressure monitoring and alarm systems in place.

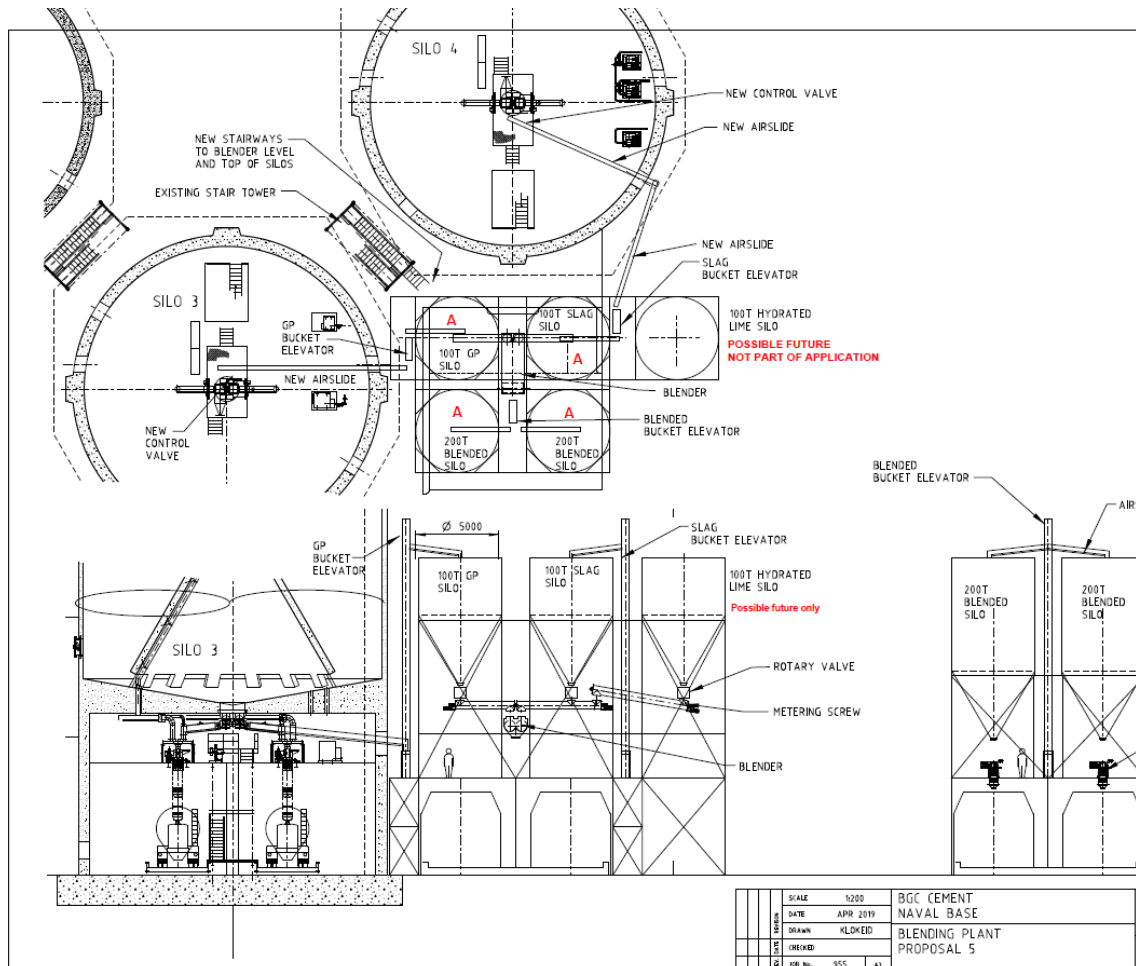


Figure 1: BGC Cement Naval Base – site plan of blending plant and silos (A)

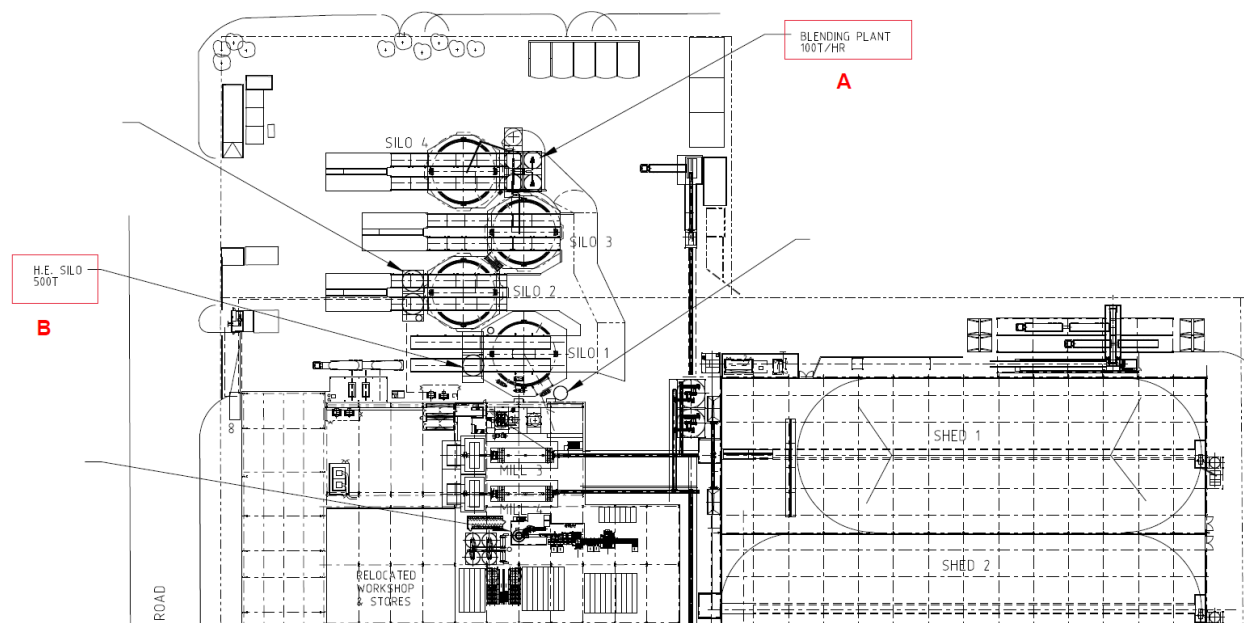


Figure 2: Location of HE cement silo on the premises (B)

3. Risk assessment

The delegated officer 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 2020a).

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 Receptors

In accordance with the *Guideline: Risk Assessments* (DWER 2020a), the delegated officer has excluded employees, visitors and contractors of the licence holder 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 Figure 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 2020b)).

Table 2: Sensitive human and environmental receptors and distance from the premises

Human receptors	Distance from the Premises
Residents on Lussky Road, Hope Valley	2.3 km to the north east
Residents on Abercrombie Road, Postans	2.9 km to the south east
Environmental receptors	Distance from the Premises
Cockburn Sound	500 m to the west

3.1.2 Emissions and controls

The key emissions and associated actual or likely pathway during construction and operation which have been considered in this report are detailed in Table 3 below. Table 3 also details

the proposed control measures the licence holder has proposed to assist in controlling these emissions, where necessary.

Table 3: Emissions, sources, pathways and licence holder controls

Emission	Sources	Potential pathways	Proposed controls
Dust	Construction of silos, traffic on site, blending of HE cement	Air	Dust Management Plan in place. Baghouse filters installed and maintained, silos fitted with filter bags with spares available, pressure differential monitoring and alarm system, system designed to capture dust and recirculate it back into the silo. Sweeper and vacuum trucks available, ongoing regular maintenance and housekeeping, clinker delivers enclosed, traffic management and truck wash down after accepting loads, wet down of any dry material to prevent dust lift.
Noise			Construction hours and deliveries will be during daylight. Traffic management, premises location and distance from sensitive receptors.

3.2 Risk ratings

Risk ratings have been determined in accordance with the *Guideline: Risk Assessments* (DWER 2020a) for those emission sources which are proposed to change, taking 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 licence 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 licence holder'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 licence 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 licence L8121 that accompanies this report regulates emissions associated with the operation of the premises i.e. high early silo activities.

The conditions in the revised licence have been determined in accordance with *Guideline: Setting Conditions* (DWER 2020c).

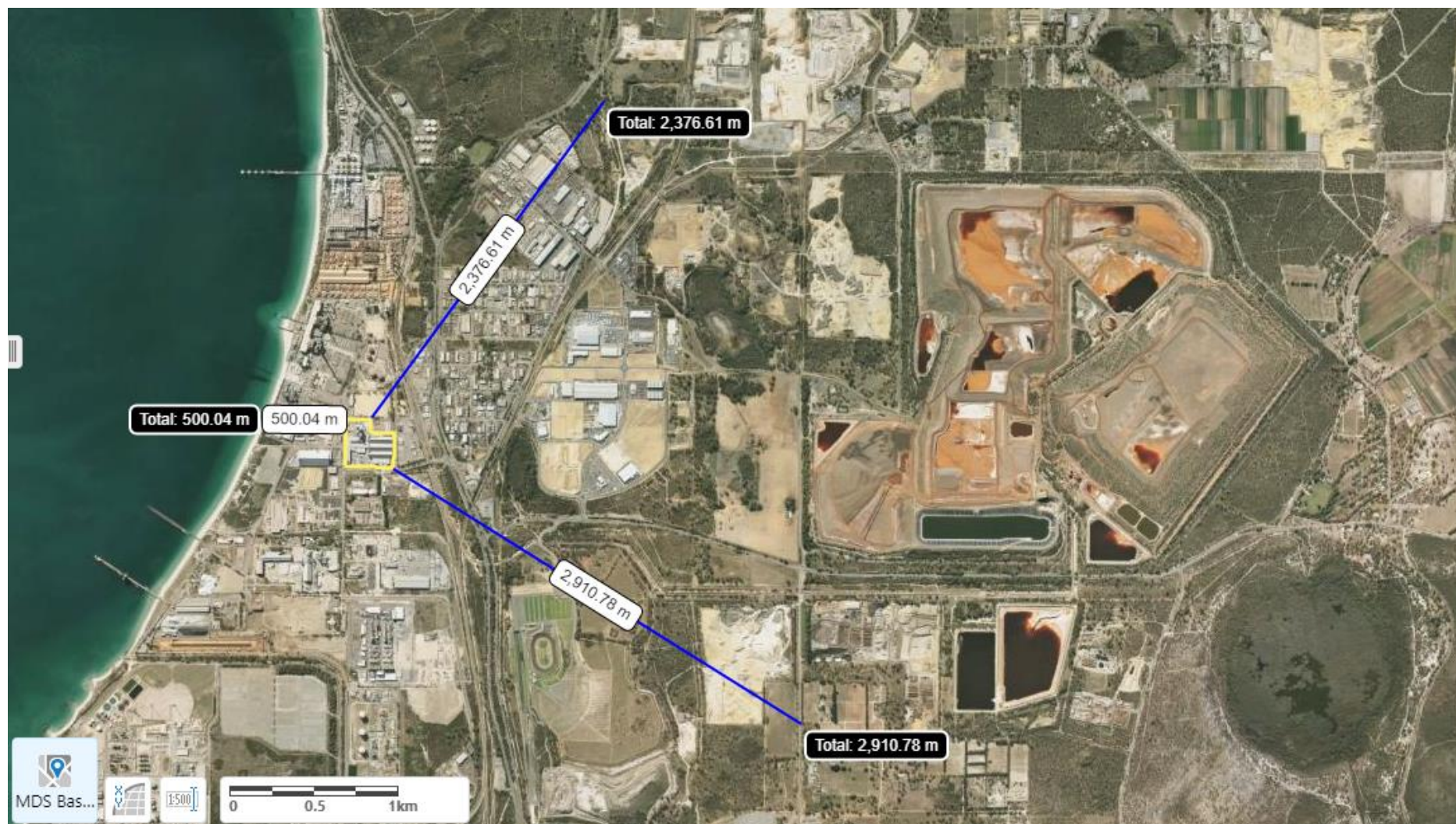


Figure 3: Distance to sensitive receptors

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

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licence holder's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence holder's controls				
Construction								
Vehicle movements around the site. Construction of the infrastructure.	Dust	Air/windborne pathway causing impacts to health and amenity	Residences 2.3 km north-east and 2.9 km south-east.	Refer to Section 3.1.2	C = Slight L = Unlikely Low Risk	Y	Condition 6 and 7	N/A
	Noise			Refer to Section 3.1.2	C = Slight L = Unlikely Low Risk	Y	N/A	N/A
Operation								
Blending plant operations, unloading, loading and storage of material Vehicle movements within the Premises	Dust	Air/windborne pathway causing impacts to health and amenity	Residences 2.3 km north-east and 2.9 km south-east.	Refer to Section 3.1.2	C = Slight L = Unlikely Low Risk	Y	<u>Condition 1</u>	New condition 1 required to specify the authorised discharge locations.
	Noise	Air/windborne pathway causing impacts to health and amenity		Refer to Section 3.1.2	C = Slight L = Unlikely Low Risk	Y	N/A	N/A

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

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

4. Consultation

Table 5: Consultation

Consultation method	Comments received	Department response
Licence holder was provided with draft amendment on 12 January 2021. Comments received on 19 January 2021.	Refer to Appendix 1 and minor typographic errors.	Refer to Appendix 1

5. Conclusion

Based on the assessment in this report, the delegated officer has determined that a revised licence 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: Consolidation of licence conditions in this amendment

Previous condition no.	New condition number	Comment
1	N/A	Condition no longer required as it duplicates requirements in <i>Concrete Batching and Cement Product Manufacturing Regulations 1998</i> .
2	N/A	as above
3	N/A	as above
N/A	1	New condition to reflect current wording used by DWER for authorised discharge points and locations.
N/A	Table 1	Discharge point table added to reflect current licence format and to specify authorised discharges.
4	2 to 5	Updated to reflect current wording used by DWER for records and reporting.
N/A	6	New condition to specify construction requirements as per the application.
N/A	Table 2	Infrastructure table added to reflect current licence format, new infrastructure to be constructed as part of this amendment added to the conditions.
N/A	7	New condition to require certification following construction of the infrastructure in Table 2.
Definitions table	Definitions table	Definitions updated to reflect additional definitions
Schedule 1: Maps	Schedule 1: Maps	Figure 1: Map of premises boundary updated Figure 2: Layout of prescribed premises added
N/A	Schedule 2: Premises boundary	Added to reflect current licence format.
Attachment 2: AACR	N/A	Removed to reflect current licence format

References

1. Department of Water and Environmental Regulation (DWER) 2020a, *Guideline: Risk Assessments*, Perth, Western Australia.
2. DWER 2020b, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020c, *Guideline: Setting Conditions*, Perth, Western Australia.

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

Condition	Summary of licence holder's comment	Department's response
Table 1	Please also include an additional line for "Mill Dust Collectors" x 4. These are shown on the Figure provided in the original application and should also be added to Schedule 1, Figure 2 on the Licence.	These additional dust collectors have been added to Table 1 of the Licence and Figure 2 has been updated.
Table 2	Blending plant: 2 x 100 tonnes silos, blender and associated conveyor belts and bucket elevators Please amend wording for technical accuracy: "blender and associated enclosed screw conveyors and bucket elevators"	The department accepts the proposed change to the wording in Table 2.
Table 2	2 x 200 tonnes silo (blended product) Please amend to capture minor design change: 2 x 300 tonne silo (blended product)	The department does not consider that the increase to capacity of the silo will involve an increase to production or emissions and agrees to this change in the final amended Licence.
Table 2	4x Loading spouts: Pressure monitoring and alarm system fitted There is no pressure monitoring or alarm system fitted to the loading spouts. Please remove.	The department accepts that this condition was included in error and has removed mention of pressure monitoring or alarm system related to loading spouts.
Table 2	"with release of waste air to a maximum height of 1m above the ground" (x3) This is only relevant for silos which are receiving cement product via tankers, such as at the batch plant. It is not relevant to the scope of work proposed for construction. The air cleaning systems for cement manufacturing are located on top of the silos. Please remove this requirement (x3) from Table 2.	The department accepts that this was included in error and has removed mention of waste air vent height from the final amended Licence.

Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY					
Application type					
Amendment to licence	<input checked="" type="checkbox"/>	Current licence number:	L8121/2003/2		
		Relevant works approval number:		N/A	<input checked="" type="checkbox"/>
Date application received					
Applicant and Premises details					
Applicant name/s (full legal name/s)		BGC (Australia) Pty Ltd			
Premises name		BGC Cement			
Premises location		24 Beard Street, NAVAL BASE WA 6165			
Local Government Authority		City of Kwinana			
Application documents					
HPCM file reference number:		DWERDT316526			
Key application documents (additional to application form):		Application form and attachments.			
Scope of application/assessment					
Summary of proposed activities or changes to existing operations.		<p>Licence amendment</p> <p>The licence holder proposes to install 5 new silos to enable product blending. Each silo will have an emission point and a bag filter for control of dust emissions from the silos.</p> <p>As these silos are more passive emission sources (only have emissions when they are being filled) there is no need to amend the licence. Construction requirements for the discharge points to be in line with the <i>Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998</i>.</p>			
Category number/s (activities that cause the premises to become prescribed premises)					
Table 1: Prescribed premises categories					
Prescribed premises category and description		Maximum production or design capacity		Proposed changes to the production or design capacity (amendments only)	
Category 43: Cement or lime manufacturing		688,000 tonnes per annum		No change proposed.	
Category 77: Concrete batching or cement products manufacturing		More than 100 tonnes per annum		No change proposed	
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 <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 type="checkbox"/> No <input checked="" type="checkbox"/>	Certificate of title <input type="checkbox"/> General lease <input type="checkbox"/> Expiry: Mining lease / tenement <input type="checkbox"/> Expiry: Other evidence <input type="checkbox"/> Expiry: <u>Existing premises</u>
Has the applicant obtained all relevant planning approvals?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>	Planning approval is being sought concurrently
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"/>	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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	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 <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: N/A Type: Proclaimed Groundwater Area/Surface Water Area Has Regulatory Services (Water) been consulted? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Regional office: Swan Avon / Mid-West Gascoyne / Kwinana Peel / North West / South West / Goldfields / South Coast
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: N/A Priority: P1 / P2 / P3 / N/A Are the proposed activities/ landuse compatible with the PDWSA (refer to <u>WQPN 25</u>)? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>

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>Concrete Batching and Cement Product Manufacturing Regulations 1998</i>
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Kwinana EPP
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No site specific requirements but only generic requirements of Kwinana EPP.
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"/>	