



## Application for Licence Amendment

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

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<b>Licence Number</b>	L9025/2017/1
<b>Licence Holder</b>	Austral Bricks (WA) Pty Ltd
<b>ACN</b>	079 711 603
<b>File Number</b>	DER2017/000089-1
<b>Premises</b>	<p>Austral Bricks Cardup</p> <p>69 Kiln Road BYFORD WA 6122</p> <p>Legal description –</p> <p>Lot 101 on Plan 42930 Byford 6122, Lot 21 on Diagram 49238 Nettleton Road Byford 6122, Lot 7 on Diagram 10840, Byford 6122, Lot 51 on Diagram 52746, Kiln Road Byford 6122, Lot 50 on Diagram 52748, Byford 6122, Lot 10 on Diagram 26892, Byford 6122, Lot 12 on Diagram 52677, Kiln Road Byford 6122, Lot 53 on Diagram 4790, Byford 6122, Lot 30 on Plan 404710, Byford 6122</p> <p>As defined by the Premises maps attached to the Revised Licence</p>
<b>Date of Report</b>	15 September 2023
<b>Decision</b>	Revised licence granted

**Amine Fisher**

**A/Manager Process Industries**

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

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# 1. Decision summary

Licence L9025/2017/1 is held by Austral Bricks (WA) Pty Ltd (licence holder) for the Cardup Brickworks (the premises), located at 69 Kiln Road, Byford.

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 operation of the premises. As a result of this assessment, revised licence L9025/2017/1 has been granted.

The revised licence issued as a result of this amendment consolidates and 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 amendment 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 [DWER Regulatory documents | Western Australian Government \(www.wa.gov.au\)](http://www.wa.gov.au).

### 2.2 Application summary and overview of premises

On 29 July 2021 the licence holder submitted an application to the department to amend licence L9025/2017/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought by the licence holder:

- addition of new batch drier stack to the approved emissions table, and;
- update of premises map showing new emission point.

The risks and environmental impact of the new batch drier were considered in the decision report for works approval W6401/2020/1, granted on 17 July 2020. The dryer is a standalone gas fired facility and not connected to the premises kiln.

On 8 May 2023 the licence holder notified the department that the Cardup Brickworks have entered care and maintenance, and that the kiln was turned off on Monday 24 April 2023. On 10 May 2023 the licence holder advised the department that they would continue to undertake the surface water monitoring requirements in L9025/2017/1 however would not be able to undertake air emissions monitoring while the kiln is not operating.

The delegated officer has determined to incorporate into this licence amendment allowance for the specified monitoring of discharges to air to be suspended when the premises is under care and maintenance. A licence condition has also been added to require the licence holder to notify the department within 30 days of the recommencement of operations following a period of care and maintenance.

The department initiated a review of the licence L9025/2017/1 that commenced on 15 June 2022. The review of licence L9025/2017/1 is focused on fugitive dust emissions and is not within the scope of this assessment and is being assessed separately by the department.

### 2.3 Compliance documentation

The licence holder was granted works approval W6401/2020/1 for the installation, environmental commissioning and time limited operations of an additional batch dryer and associated drying room.

The licence holder submitted an Environmental Compliance Report (ECR) on 6 May 2021

(Austral 2021). The department requested further information from the licence holder on 2 March 2023 to determine compliance with the design and construction requirements specified in condition 1, Table 1 of W6401/2020/1. The licence holder responded on 12 June 2023 and provided as constructed plans for each items of infrastructure or equipment or component(s) thereof specified in condition 1, Table 1 of W6401/2020/1 to demonstrate construction was in accordance with the works approval conditions (Austral 2023).

### 2.3.1 Air emission monitoring results

The licence holder submitted a stack testing report on 6 May 2021 as required by condition 7 of the works approval (Austral 2021). The department reviewed the stack testing report and compared it to the predicted emissions from the W6401/2020/1 decision report (DWER 2020c; Table 1).

**Table 1: Acid gas emissions: existing, predicted and with the batch dryer**

Emitted gas	Existing Dryers	Kiln Stack	Existing total	Predicted batch dryer	Recorded batch dryer average	Actual combined total	Predicted combined total	Predicted % increase	Real % increase
Mass rate (g/s)									
HF	0.014	0.47	0.484	0.0032	0.0037	0.4877	0.4872	0.7%	0.76%
HCl	0.077	1.83	1.907	0.011	0.065	1.972	1.918	0.6%	3.4%
SO <sub>2</sub>	0.0065	0.803	0.8095	0.0007	0.016	0.8255	0.8102	0.1%	1.98%

As required by condition 15 of L9025/2017/1, in October 2019 the licence holder submitted an 'Air dispersion model update report' (JBS&G 2019) to the department. Condition 15 required the licence holder to undertake an air emission investigation and submit the report to the department by October 2019. The delegated officer has determined to remove the conditions on L9025/2017/1 that relate to the air emission investigation as they have been completed.

In granting the works approval for the new batch dryer the delegated officer determined that the percentage increase in acid gas emissions would not result in a significant change to the current ground level concentrations (GLCs) at the nearest receptor, and gave consideration to the findings of the 'Air dispersion model update report' (DWER 2020c). The delegated officer notes that the percentage increase presented in Table 1 represents a higher percentage increase than the predicted less than 1% for HCl and SO<sub>2</sub> at 3.4% and 1.98% respectively. Although higher than predicted, the percentage increase in emissions is not considered likely to materially change the existing risk profile for these gases.

The licence holder was also required to undertake monitoring of particulate matter (PM) to confirm the significance of this emission (DWER 2020c). The average measured PM concentration was 3.1 mg/m<sup>3</sup>, and the average mass rate was 0.014 g/s. These monitoring results confirm that PM emissions from the new dryer are negligible therefore do not require ongoing monitoring or controls in the licence.

The delegated officer considers that the changes in overall acid gas and PM emissions are negligible and do not change the existing air emissions risk profile (including the risk at the nearest receptors). The existing licence contains conditions that are adequate and appropriate to control the risk of air emission impacts at the nearest sensitive receptors.

Works approval W6401/2020/1 did not require the licence holder to undertake monitoring for

nitrogen oxides (as NO<sub>2</sub>) however as the applicant provided NO<sub>2</sub> monitoring results from the batch dryer in the stack testing report the department undertook a screening assessment to assess whether NO<sub>2</sub> from the new dryer was a pollutant of concern. The screening assessment indicated that while NO<sub>2</sub> emissions were not found to be insignificant (< 10% of the 1-hour ambient air quality guideline values as per the department's draft *Guideline: Air Emissions* (DWER 2019a)), the magnitude of NO<sub>2</sub> emissions is unlikely to cause an exceedance of the relevant criteria – being the National Environmental Protection Council (NEPC), *National Environment Protection (Ambient Air Quality) Measure 2021*.

## 2.4 Appeal

Works approval W6401/2020/1 was granted on 17 July 2020. Appeal number 038 of 2020 was lodged in objection to the conditions of the works approval based on concerns that emissions to air of particulate matter (PM) and acid gases (hydrogen fluoride, hydrogen chloride and sulphur dioxide) from the new batch dryer and associated drying room, were not properly considered by the department.

On 8 June 2021 the then Minister for Environment dismissed the appeal. The grounds for appeal, consideration of them and determination are documented in [Office of the Appeals Convenor Report](#) and [Appeal Determination](#).

In responding to the grounds for appeal the department noted that it would ensure that the appellant (Cedar Woods Properties Limited) would be notified of public comment opportunities on future applications for the Cardup Brickworks where there is the potential of proposed activities impacting on sensitive receptors.

## 3. Land use planning

The 'Guide to licensing' (DWER 2019b) outlines the department's position on land use planning decisions in the context of the department assessing a licence application. The guidance notes that the department's statutory roles under the EP Act may intersect with the land use planning functions of Local Government (DWER 2019b).

The licence amendment application was referred to the Shire of Serpentine Jarrahdale (the Shire) for comment on 5 October 2021. The Shire responded on 19 October 2021 that they had no record of granting planning approval for the amended processes that are associated with the new works, being the additional batch dryer. The Shire also noted receiving community feedback raising concerns about the batch dryer infrastructure.

The licence holder provided further information to the department on 8 September 2022 outlining that they are of the view that approval has been granted to the extent that approval is required from development approval PA18/919 and building permit 18/1007.

The Shire provided updated comments on 11 September 2023 that the batch dryer does form part of the development approval (PA18/919), and that the Shire would like to recommend that appropriate dust, air emissions and odour monitoring is undertaken for the new infrastructure. The scope of this assessment was the addition of the new batch dryer and the department's addition of conditions related to care and maintenance. There was not considered to be any risk of fugitive dust or odour associated with operation of the batch plant, and therefore no specific fugitive dust or odour controls related to the new dryer have been included in the amended licence. The delegated officer considered the risk of air emissions and particulate matter from the new batch dryer in section 2.3.1.

## 4. Risk assessment

The risk associated with emissions and discharges from the operation of the new batch drier has been previously assessed following the department's regulatory risk framework in the works approval W6401/2020/1 decision report (DWER 2020c; Appendix 2). The risk

assessment is document in section 2.5 of the W6401/2020/1 decision report. Taking into account the licence amendment application, the monitoring results provided for the dryer and the licence holder's ECR for the works approval, the delegated officer did not identify any changes to the previously assessed risk profile that require further detailed assessment.

## 5. Consultation

Table 2 provides a summary of the consultation undertaken by the department.

**Table 2: Consultation**

Consultation method	Comments received & Department response
Local Government Authority advised of proposal 5/10/2021	See section 3.
Application advertised on the department's website (2/03/22)	See section 5.1.
The licence holder was provided with the draft amended licence and draft decision report on 7 September 2023.	Comments were received on 11 September 2023. See Appendix 1.

### 5.1 Public consultation

The department received a submission from local residents and community groups in response to the licence amendment application advertisement. Points raised in the submission are summarised against identified emission or environmental risk theme in Table 3.

**Table 3: Submissions received by DWER**

Issue	Description of issue raised	Delegated officer's response
Wind	Noted that katabatic winds drive emissions from the brickworks over the SW Highway, Cardup, the Scarp Development and Byford town.	The delegated officer notes that there are limitations in the licence holder's approach to using wind speed and direction data which is unlikely to be truly representative of the brickworks site in the 'Air dispersion model update' (JBS&G 2019).  As outlined in section 2.3.1, the delegated officer nonetheless found that the additional emissions from the batch dryer represent a relatively small proportion of the premises air emissions and are unlikely to alter the assessed risk profile of the premises.
Reporting of air emissions	Lack of challenge to National Pollution Inventory (NPI) reporting  'DEC Brickworks' licencing report shows that the industry (including Cardup) has been exceeding the ambient air standards and notes the significant pollutants of	The delegated officer notes that the submission raised concerns around air emissions. See section 2.3.1 for summary data on air emissions and conclusions.  The department reviewed the stack testing data undertaken by the licence holder and did not use National Pollution Inventory (NPI) data when determining the risk profile of air emissions from the

Issue	Description of issue raised	Delegated officer's response
	concern. These are ignored by DWER in their approvals for the Cardup plan'.	new batch dryer as NPI data is not a suitable information source for determining the risk of air emission impacts, as it is not specific to individual sources.
Air emissions	By-pass events such as start-ups and shut-downs, emit more pollution than is regularly monitored, CEMS necessary for proper estimation of air emissions levels particularly dioxins.  Composition of the clay unknown, impacts on air emissions.	In the 'Air dispersion model update' (JBS&G 2019) normal and bypass scenarios were considered.  The delegated officer considers that the air emissions from the batch dryer do not change the existing air emissions risk profile of the premises, and the clay composition is not considered to impact on this finding.
Insufficient response to appeal determinations	Several appeal determination reports have highlighted the inadequacy of the regulation of the brickworks, and the recommendations have been ignored.	See section 2.4. The appeal against the conditions of the works approval W6401/2020/1 was dismissed by the then Minister for Environment. The Minister considered the conditions were appropriate to manage identified risks and potential impacts to the environment, and no additional conditions were required in the works approval.  A prior appeal number 100 in 2010 for the previous licence of the Cardup Brickworks L6407/1967/9 does not relate to the assessment of this amendment where the scope is limited to the addition of the batch dryer and administrative changes relating to care and maintenance.

## 6. Decision

Based on this assessment, the delegated officer has determined to amend the licence to include the dryer and associated emissions points on the licence. The reasons for this decision are:

- The risk associated with emissions and discharges from the operation of the new batch drier has been previously assessed following the department's regulatory risk framework in the works approval W6401/2020/1 decision report (DWER 2020c) and is not expected to change as there has been no material change since the assessment.
- In reviewing the Environmental Compliance Report and air emissions monitoring results provided by the licence holder (Austral 2021 & 2023) the delegated officer considers that the risk is not expected to be materially different from what was previously assessed in the works approval W6401/2020/1 decision report (DWER 2020c).

The delegated officer has determined to incorporate care and maintenance conditions on the licence as part of this licence amendment, as specified in Table 4. When the premises is in a period of care and maintenance the delegated officer noted that the licence holder will not be able to monitor discharges to air from the kiln stack, nor will there be a risk of emissions from the kiln stack whilst it is not operating.

The delegated officer has also specified the requirement to provide at least 30 days' notice to



the CEO of operations recommencing at the premises following a period of care and maintenance.

As part of this amendment the delegated officer has updated the licence to align the instrument with the current licence format. In amending the licence, the delegated officer has:

- revised condition numbers, and removed any redundant conditions and realigned condition numbers for numerical consistency; and
- updated reporting and record keeping conditions consistent with the current DWER licensing format.

The obligations of the licence holder have not changed in updating the licence therefore no additional risk assessment relating to previously assessed activities has been undertaken. The full details of the amendments to the licence are included in section 7.1.

## 7. Conclusion

Based on the assessment in this amendment report, the delegated officer has determined that an amended licence will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

### 7.1 Summary of amendments

Table 4 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the revised licence as part of the amendment process.

**Table 4: Summary of licence amendments**

Condition no.	Proposed amendments
1, Table 1	Updated operational requirement to include operational requirements for the batch dryer and drying room, as per the Time Limited Operations requirements under W6401/2020/1.
3, Table 2	Updated authorised discharge points to include Dryer Stack S4, and NO <sub>2</sub> as an authorised emission from the listed sources.
N/A	Removed the conditions related to 2019 air emissions investigations as the report was submitted on 21 October 2019.
12	Added a condition to require the licence holder to notify the department within 30 days of the recommencement of operations following a period of care and maintenance.
13	Added a condition to require the licence holder to notify the department within 30 days of entering care and maintenance.
N/A	Updated the Map:2 manufacturing area layout to include S4 emission point.
Schedule 2, Table 7, Note 4	Updated the monitoring of discharges to air Note 4 to remove the requirement for monitoring from the Kiln Stack when the premises is in care and maintenance.

**Table 5: Consolidation of licence conditions in this amendment**

Existing condition	Condition summary	Revised licence condition	Conversion notes
N/A	Prescribed Premises Category table	N/A	Revised to current licensing format. Moved from Schedule 2: Primary Activities Table 10.



Existing condition	Condition summary	Revised licence condition	Conversion notes
N/A	N/A	Licence history	Added licence history, consistent with current licence format.
N/A	Explanatory notes	N/A	Redundant condition. Revised to current licensing format.
0	Definitions	Definitions, Table 6	Definitions moved to end of licence as is the current licensing format, and updated definitions.  Definitions added: 'ACR', 'books', 'care and maintenance'  Definitions removed: 'compliance reports', 'Condition', 'Department Request',
0(c)	Australian or other standard	N/A Interpretation section, Definitions and Table 1	Redundant condition. Revised to current licensing format.
0(c)	Reference to code of practice		
1	Emissions	N/A	Redundant condition. Revised to current licensing format in Emissions and Discharges section.
2	Infrastructure and equipment	Condition 1	Redundant condition, removed references to 'good working order' and 'manufacturers' specifications.  Updated references to "Maps" to relevant "Figures".
11	Record-keeping	Conditions 10-17	New numbering and revised to current licence format with records and reporting section.
12	Complaints	Condition 11	New numbering and revised to current licensing format.
16-19	Reporting	Conditions 10-17	New numbering and revised to current licence format with records and reporting section. Fixed reference error for non-compliance notification condition.
18	Department request	Condition 17	Redundant conditioning, requirement to produce books to an inspector or the CEO is covered by current licence records and reporting conditions.
Schedule 1: Maps	Premises map	Schedule 1: Maps	New naming convention, no change to map

## References

1. Austral Bricks (WA) Pty Ltd (Austral) 2021, *Licence Amendment Application and Supporting Documents Cardup Brickworks*.
2. Austral Bricks (WA) Pty Ltd (Austral) 2021, *W6401/2020/1 Environmental Compliance Report*.
3. Austral Bricks (WA) Pty Ltd (Austral) 2023, *W6401/2020/1 Further Information Environmental Compliance Report*.
4. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
5. Department of Water and Environmental Regulation (DWER) 2019a, *Draft Guideline: Air Emissions*, Perth, Western Australia.
6. Department of Water and Environmental Regulation (DWER) 2019b, *Guideline: Industry Regulation Guide to Licensing*, Perth, Western Australia.
7. Department of Water and Environmental Regulation (DWER) 2020a, *Guideline: Environmental Siting*, Perth, Western Australia.
8. Department of Water and Environmental Regulation (DWER) 2020b, *Guideline: Risk Assessments*, Perth, Western Australia.
9. Department of Water and Environmental Regulation (DWER) 2020c, *Works approval W6401/2020/1 and Decision Report*, Perth, Western Australia.
10. JBS&G 2019, *Air dispersion model update*, Cardup Brickworks.

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

Condition	Summary of Licence Holder's comment	Department's response
1, Table 1, column 2	Delete the full stop in row 4 Add "2. " Before the 2 <sup>nd</sup> condition in row 6 Add "2. " Before the 2 <sup>nd</sup> condition in row 9	Noted, updated accordingly.
9, Table 4	Replace "Map 3" with "Figure 3"	Noted, updated references throughout licence from maps to figures.
15, Table 5	Conditions 10, 6 and 12 in column 1 should be 9, 5 and 11	Noted, condition numbers updated accordingly.
16	Condition 10 should be condition 12	Noted, condition should read Condition 11, have updated accordingly.
Definitions, Table 6	Add a definition for NO <sub>2</sub> Add a definition for the USEPA test method for NO <sub>2</sub>	Noted, definition of NO <sub>2</sub> .has been added to the definitions table. The delegated officer had not determined that any monitoring was required for NO <sub>2</sub> and therefore no testing method was added to the licence.
Schedule 2, Table 7	Add NO <sub>2</sub> as a parameter, along with the corresponding averaging period, unit and method	This licence amendment is limited to addition of the batch dryer and care and maintenance conditions. The delegated officer has not made any determination that NO <sub>2</sub> monitoring is required for the Kiln.

# Appendix 2: Decision report for works approval W6401/2020/1



Government of Western Australia  
Department of Water and Environmental Regulation

## Decision Report

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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
ACN	Australian Company Number
Applicant	Austral Bricks (WA) Pty Ltd
ASIC	Australian Securities and Investments Commission
Category/ Categories/ Cat.	Categories of Prescribed Premises as set out in Schedule 1 of the EP Regulations
CEO	Chief Executive Officer of the Department of Water and Environmental Regulation  CEO for the purposes of notification means:  Director General Department Administering the <i>Environmental Protection Act 1986</i> Locked Bag 33 Cloisters Square PERTH WA 6850 <a href="mailto:info@dwer.wa.gov.au">info@dwer.wa.gov.au</a>
Delegated Officer	an officer under section 20 of the EP Act.
Department	means the department established under section 35 of the <i>Public Sector 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
EP Act	<i>Environmental Protection Act 1986</i> (WA)
EP Regulations	<i>Environmental Protection Regulations 1987</i> (WA)
Licence	The licence issued under Part V, Division 3 of the EP Act and in force during this review.
Premises	refers to the premises to which this Decision Report applies, as specified at the front of this Decision Report

## 2. Works Approval application assessment

### 2.1 Purpose and scope of this decision report

Austral Bricks (WA) Pty Ltd (the Applicant) operates the Cardup Brickworks (the Premises), which is a prescribed premises regulated through the *Environmental Protection Act 1986* (the EP Act) under Licence L9025/2017/1. The Applicant applied for a works approval on 16 April 2020 (the Application) to install an additional batch dryer and associated drying room. The Application does not alter the Premises' currently licensed maximum production capacity, boundary, or add additional categories.

The scope of this assessment is to identify whether the additional dryer will cause any potential changes to the Premises' risk profile and whether the current licence controls are adequate to cover the proposed works during operation.

The following guidance statements have informed the decision made on this application:

- *Guidance Statement: Regulatory Principles* (July 2015);
- *Guidance Statement: Risk Assessment* (February 2017);
- *Guidance Statement: Setting Conditions* (October 2015);
- *Guideline: Decision Making* (June 2019); and
- *Guideline: Industry Regulation Guide to Licensing* (June 2019).

### 2.2 Background

The Premises are prescribed under category 41 (clay bricks or ceramic products manufacturing as per Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations). The authorised throughput capacity is 200,000 tonnes per year.

The Applicant produces clay bricks at the Premises for the local market. Raw materials are mixed and then placed in moulds. These are then dried in gas fired dryers prior to being baked in the gas fired tunnel kiln. There are three stacks from which waste gases are vented to atmosphere, these are the kiln stack and two dryer stacks. The emissions from these stacks are controlled through licence conditions regarding authorised emission points, stack emission limits and stack monitoring (only for the kiln stack).

The Applicant has applied for a works approval to construct and operate a standalone batch dryer/drying room between the existing kiln and dryers within the Plant 3 building. The room will consist of concrete footings, precast panel walls and precast concrete hollow core roof panels.

The batch dryer/drying room will be used for the drying of solid product only with a four-car capacity. Heat will be generated from two gas burners and the process will take 48 hours, and reach a maximum temperature of 250 degrees Celsius. It is proposed that hot air from the batch dryer/drying room will exhaust via a stack at approximately 1.5m above roof level.

Construction will occur over a four-week period. The (environmental) commissioning of the batch dryer/drying room is expected to take approximately 20 days.

## 2.3 Licensing history

Table 2 summarises the licence history for the Premises.

**Table 2: Licence and works approval history**

Instrument	Issued	Nature and extent of works approval, licence or amendment
L6407/1967/9	26/11/2010	Licence for ongoing operation of Cardup brickworks. Ceased to have effect in 1/1/2015 due to non-payment of annual fees. Premises were in care and maintenance and Licence Holder did not apply for a new licence.
W5925/2015/1	28/01/2016	Refurbishment of Kiln 3 and associated brick manufacturing infrastructure, including the installation of a cascade lime scrubber.
W5925/2015/1	14/6/2017	Amendment Notice No 1 - extends the commissioning timeframe of Kiln 3 from six to nine months.
W5925/2015/1	16/10/2017	Amendment Notice No 2 – extends the commissioning timeframe of Kiln 3 from nine to 12 months.
W5925/2015/1	4/01/2019	Amendment Notice No 3 – extended the expiry date of the works approval of Kiln 3 to 30 April 2019
W5925/2015/1	29/4/2019	Amendment Notice No 3 – extended the expiry date of the works approval of Kiln 3 to 30 June 2019
L9025/2017/1	18 June 2019	New licence issued for clay bricks or ceramic products manufacturing

## 2.4 Other approvals

The Applicant has provided the information in Table 3 relating to other approvals applicable to the Application.

**Table 3: Relevant approvals**

Legislation	Number	Approval
<i>Planning and Development Act 2005</i>	Development Approval PA18/919	Granted 21st February 2019
<i>Building Act 2011</i> <i>Building Regulations 2012</i>	Building Permit 18/1007	Granted 3rd January 2019



## 2.5 Risk assessment

The Delegated Officer has determined from the Application, and with reference to the Premises' existing licence (L9025/2017/1), that emissions to air of Hydrogen Fluoride (HF), Hydrogen Chloride (HCl) and Sulphur Dioxide (SO<sub>2</sub>) gases from the proposed dryer have the potential to adversely impact nearby receptors.

As required by the Premises' licence condition 15, in October 2019 the Applicant submitted to the CEO an *Air dispersion model update* report. This report predicts that the emissions from the existing dryers dominate ground level concentrations (GLC) of emissions from the Premises at the closest sensitive receptors. Though the GLCs are generally less than 20% of the Department of Health's criteria for combined acid gases (HF, HCl and SO<sub>2</sub>).

Table 4 details the current stack emission levels from the existing dryers and the kiln stack, together with the predicted emissions from the proposed dryer's stack, which the Applicant has provided in its *Commissioning Plan* (Austral Bricks, 2020). Through combining these data, the percentage increase in the overall level of emissions from the Premises can be estimated.

**Table 4: Existing and predicted emissions under commissioning and operation**

Emitted Gas	Existing Dryers	Kiln Stack-	Existing Total	Proposed Batch Dryer	Predicted Combined Total	% Increase
HF	0.014	0.47	0.484	0.0032	0.4872	0.7%
HCl	0.077	1.83	1.907	0.011	1.918	0.6%
SO <sub>2</sub>	0.0065	0.803	0.8095	0.0007	0.8102	0.1%

The Delegated Officer considers that the % increases presented in Table 4 would not result in a significant change to the current GLCs at the nearest receptors.

Having considered the findings of the *Air dispersion model update* report, the data presented in Table 4, and, with reference to the *Guidance Statement: Risk Assessment*, the Delegated Officer is satisfied that the proposed additional infrastructure does not introduce any new risk events nor alters the existing risk events such that additional controls are required to be prescribed in the licence. The Delegated Officer concludes that the operation of the proposed dryer will not change the current risk profile of the Premises.

## 2.6 Determined regulatory controls

Controls to be implemented are detailed in the works approval and relate to:

- specified design and construction requirements for the proposed infrastructure, with a minimum stack height of 3m above the roof line to allow for better dispersion of air emissions;
- a limit of 180 calendar days on time limited operations, during which the Applicant can apply for the existing licence (L9025/2017/1) to be amended to include the additional dryer and associated discharge point; and
- administrative controls, e.g. record keeping and reporting.

## 2.7 Decision

The Delegated Officer has reviewed the emissions associated with the construction, commissioning and time limited operation of an additional dryer at the Premises, and concluded that they will not significantly alter those associated with the existing licensed kiln and dryers.

Therefore, the Delegated Officer has come to a decision that the proposed additional infrastructure can be approved.

## 3. Applicant's comments

The applicant notified the Department via email on 15 July 2020 that it had no comments on the draft decision report or draft works approval, and waived the remainder of the 21 day consultation period.

## 4. 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.

Chris Malley

A/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.	Application for a works approval	the Application	DWER record (DWERDT273016)
2.	Commissioning Plan, Cardup Brickworks, Batch Dryer, Kiln Road, Byford	Commissioning Plan	DWER record (DWERDT273016)
3.	Air dispersion model update, Cardup Brickworks, 15 October 2019	Air dispersion model update	DWER record (DWERDT214659)
4.	Licence L9025/2017/1	L9025/2017/1	Accessed at <a href="http://www.dwer.wa.gov.au">www.dwer.wa.gov.au</a>
5.	DER, July 2015. <i>Guidance Statement: Regulatory principles</i> . Department of Environment Regulation, Perth.	N/A	Accessed at <a href="http://www.dwer.wa.gov.au">www.dwer.wa.gov.au</a>
6.	DER, October 2015. <i>Guidance Statement: Setting conditions</i> . Department of Environment Regulation, Perth.		
7.	DER, February 2017. <i>Guidance Statement: Risk Assessments</i> . Department of Environment Regulation, Perth.		
8.	DWER, June 2019. <i>Guideline: Decision Making</i> . Department of Environment Regulation, Perth.		
9.	DWER, June 2019. <i>Guideline: Industry Regulation Guide to Licensing</i> . Department of Water and Environmental Regulation, Perth.		