



Licence

Environmental Protection Act 1986, Part V

Licensee: Austral Bricks (WA) Pty Ltd

Licence: L6162/1986/15

Registered office: 738 - 780 Wallgrove Road
HORSLEY PARK NSW 2175

ACN: 079 711 603

Premises address: Austral Bricks Bellevue
Lot 1 on Plan 16497
Military Road
BELLEVUE WA 6056
as depicted in Schedule 1.

Issue date: Monday, 29 June 2015

Commencement date: Wednesday, 1 July 2015

Expiry date: Saturday, 30 June 2018

Prescribed premises category

Schedule 1 of the *Environmental Protection Regulations 1987*

Category number	Category description	Category production or design capacity	Approved Premises production or design capacity
41	Clay bricks or ceramic products manufacturing: premises on which refractory products, tiles, pipes or pottery are manufactured	1000 tonnes or more per year	200 000 tonnes per annual period

Conditions

This Licence is subject to the conditions set out in the attached pages.

.....
Officer delegated under section 20
of the *Environmental Protection Act 1986*



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Introduction

This Introduction is not part of the Licence conditions.

DER's industry licensing role

The Department of Environment Regulation (DER) is a government department for the state of Western Australia in the portfolio of the Minister for Environment. DER's purpose is to advise on and implement strategies for a healthy environment for the benefit of all current and future Western Australians.

DER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process DER works with the business owners, community, consultants, industry and other representatives to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DER also monitors and audits compliance with works approvals and licence conditions, takes enforcement action as appropriate and develops and implements licensing and industry regulation policy.

Licence requirements

This Licence is issued under Part V of the Act. Conditions contained within the Licence relate to the prevention, reduction or control of emissions and discharges to the environment and to the monitoring and reporting of them.

Where other statutory instruments impose obligations on the Premises/Licensee the intention is not to replicate them in the Licence conditions. You should therefore ensure that you are aware of all your statutory obligations under the Act and any other statutory instrument. Legislation can be accessed through the State Law Publisher website using the following link:

<http://www.slp.wa.gov.au/legislation/statutes.nsf/default.html>

For your Premises relevant statutory instruments include but are not limited to obligations under the:

- *Environmental Protection (Unauthorised Discharges) Regulations 2004* – these Regulations make it an offence to discharge certain materials such as contaminated stormwater into the environment other than in the circumstances set out in the Regulations.
- *Environmental Protection (Controlled Waste) Regulations 2004* - these Regulations place obligations on you if you produce, accept, transport or dispose of controlled waste.
- *Environmental Protection (Noise) Regulations 1997* – these Regulations require noise emissions from the Premises to comply with the assigned noise levels set out in the Regulations.



You must comply with your Licence. Non-compliance with your Licence is an offence and strict penalties exist for those who do not comply.

Licence holders are also reminded of the requirements of section 53 of the Act which places restrictions on making certain changes to prescribed premises unless the changes are in accordance with a works approval, licence, closure notice or environmental protection notice.

Licence Fees

If you have a licence that is issued for more than one year, you are required to pay an annual licence fee prior to the anniversary date of issue of your licence. Non payment of annual licence fees will result in your licence ceasing to have effect meaning that it will no longer be valid and you will need to apply for a new licence for your Premises.

Ministerial conditions

If your Premises has been assessed under Part IV of the Act you may have had conditions imposed by the Minister for Environment. You are required to comply with any conditions imposed by the Minister.

Premises description and Licence summary

The Austral Bricks Bellevue premises has been in operation since 1989 and manufactures various clay/ ceramic products including bricks, pavers and special shapes. The site covers an area of 26 ha and is approximately 1 km from the Midland Sub-Regional Centre. Various commercial premises are located nearby. Midland Health Campus will be located in vicinity of the Premises. The Helena River flood plain lies to the southern and western boundaries of the premises.

The premises includes;

- Raw material stockpile areas;
- Primary and secondary crusher and screens;
- Extruder;
- Dryer;
- Gas fired tunnel kiln;
- Kiln exhaust gas abatement plant (dry injection fabric filter).

Manufacture of bricks and tiles involves four main stages;

Clay preparation involves grinding and crushing of clays and shale, blending of different clay types and addition of water. Colorants or materials to improve the mechanical properties of the finished product may also be added.

Product shaping covers shaping the raw material mix into shapes using moulds or by extrusion. During or after shaping, additives may be applied to the surface of the raw clay shapes to achieve desired colour or texture effects.

Drying of the shaped products is undertaken by passing them through a dryer, heated by warm air from the cooling zone of the kiln. Exhaust gases from the dryer are vented to atmosphere.

Firing of the dried shapes is undertaken in a high temperature kiln. As the clay products are heated, fluoride, chloride, sulphur and other elements naturally present in the clays are emitted into the air in the kiln, along with more water vapour. The fluoride release rate varies over the firing cycle and peaks at temperatures of around 800°C, depending on the raw material, product and kiln conditions. Some of the raw material additives are also burnt off during firing.

Kiln exhaust gas emissions are discharged to air after being abated through a four chamber Dry Injection Fabric Filter (DIFF) scrubber dosed with an alkaline scrubbing reagent. The principle



emissions to air are acid chloride and fluoride gases, oxides of nitrogen, oxides of sulphur, VOCs and particulates. The abatement unit can be by-passed to undertake essential maintenance for critical operational or safety reasons.

The Licensee has prepared a dust management plan which specifies operational procedures and controls are used to minimise dust emissions from raw materials storage and handling operations. There are no authorised discharges to water or land from the premises.

The licence re-issue authorises operation of the Premises for a further 3 year period. DER has not re-assessed emissions and discharges from the Premises and has not proposed changes to existing emission controls. Standard condition text has been updated to incorporate changes to the licence template. Improvement requirements have been prescribed based on findings of recent compliance inspections at the Premises and discussions with the Licensee to minimise potential environmental impacts from abatement plant bypass events.

The licences and works approvals issued for the Premises since 29/06/2007 are:

Instrument log		
Instrument	Issued	Description
L6162/1986/11	29/06/2007	Licence re-issue
L6162/1986/12	27/06/2008	Licence re-issue
L6162/1986/13	29/06/2009	Licence re-issue
L6162/1986/13	29/10/2010	Licence amendment – Oxygen correction factor for monitoring data changed from 15% to 18%
L6162/1986/14	21/06/2012	Licence re-issue
L6162/1986/14	27/03/2014	Licence amendment to REFIRE format
L6162/1986/15	29/06/2015	Licence re-issue

Severance

It is the intent of these Licence conditions that they shall operate so that, if a condition or a part of a condition is beyond the power of this Licence to impose, or is otherwise *ultra vires* or invalid, that condition or part of a condition shall be severed and the remainder of these conditions shall nevertheless be valid to the extent that they are within the power of this Licence to impose and are not otherwise *ultra vires* or invalid.

END OF INTRODUCTION



Licence conditions

1 General

1.1 Interpretation

1.1.1 In the Licence, definitions from the *Environmental Protection Act 1986* apply unless the contrary intention appears.

1.1.2 For the purposes of this Licence, unless the contrary intention appears:

'Abatement Plant' means the four chamber Dry Injection Fabric Filter (DIFF) scrubber which is dosed with an alkaline scrubbing reagent through which kiln emissions are treated prior to discharge to air;

'Abatement Plant Bypass' means any event when exhaust gases from the kiln are emitted to air without being treated through the Abatement Plant;

'Act' means the *Environmental Protection Act 1986*;

'annual period' means the inclusive period from 1 July until 30 June in the following year;

'AS 3580.1.1' means the Australian Standard AS 3580.1.1 *Methods for sampling and analysis of ambient air – Guide to siting air monitoring equipment*;

'AS 3580.13.2' means the Australian Standard AS3580.13.2 *Determination of fluorides - Gaseous and acid-soluble particulate fluorides - Manual, double filter paper sampling*;

'AS 4323.1' means the Australian Standard AS4323.1 *Stationary Source Emissions Method 1: Selection of sampling positions*;

'averaging period' means the time over which a limit or target is measured or a monitoring result is obtained;

'CEMS' means continuous emissions monitoring system;

'CEO' means Chief Executive Officer of the Department of Environment Regulation;

'CEO' for the purpose of correspondence means;

Manager - Licensing (Process Industries)

Department of Environment Regulation

Locked Bag 33

CLOISTERS SQUARE WA 6850

Telephone: (08) 9333 7510

Facsimile: (08) 9333 7550

Email: industry.regulation@der.wa.gov.au;

'code of practice for the storage and handling of dangerous goods' means document titled "Storage and handling of dangerous goods: Code of Practice" published by the Department of Mines and Petroleum, as amended from time to time;



'dangerous goods' has the meaning defined in the *Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007*;

'environmentally hazardous material' means material (either solid or liquid raw materials, materials in the process of manufacture, manufactured products, products used in the manufacturing process, by-products and waste) which if discharged into the environment from or within the premises may cause pollution or environmental harm. Note: Environmentally hazardous materials include dangerous goods where they are stored in quantities below placard quantities. The storage of dangerous goods above placard quantities is regulated by the Department of Mines and Petroleum;

'fugitive emissions' means all emissions not arising from point sources identified in Sections 2.2, 2.3;

'Licence' means this Licence numbered L6162/1986/15 and issued under the Act;

'Licensee' means the person or organisation named as Licensee on page 1 of the Licence;

'NATA' means the National Association of Testing Authorities, Australia;

'NATA accredited' means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis;

'normal operating conditions' means any operation of a particular process (including abatement equipment) excluding start-up, shut-down and upset conditions, in relation to stack sampling or monitoring;

'NOx' means oxides of Nitrogen, calculated as the sum of nitrogen oxide and nitrogen dioxide and represented as nitrogen dioxide;

'Premises' means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on page 1 of the Licence;

'quarterly' means the 4 inclusive periods from 1 July to 30 September, 1 October to 31 December and 1 January to 31 March, 1 April to 30 June in the following year;

'Schedule 1' means Schedule 1 of this Licence unless otherwise stated;

'Schedule 2' means Schedule 2 of this Licence unless otherwise stated;

'shut-down' means the period when plant or equipment is brought from normal operating conditions to inactivity;

'stack test' means a discrete set of samples taken over a representative period at normal operating conditions;

'start-up' means the period when plant or equipment is brought from inactivity to normal operating conditions;

'USEPA' means United States (of America) Environmental Protection Agency;

'USEPA Method 5' means the promulgated Test Method 5 – Determination of Particulate Matter Emissions from Stationary Sources;

'USEPA Method 7E' means the promulgated Test Method 7E - Determination of Nitrogen Oxides Emissions From Stationary Sources (Instrumental Analyzer Procedure);



'USEPA Method 8' means the promulgated Test Method 8 – Determination of Sulphuric Acid and Sulfur Dioxide Emissions from Stationary Sources;

'USEPA Method 10' means the promulgated Test Method 10 – Determination of Carbon Monoxide Emissions from Stationary Sources (Instrumental Analyzer Procedure);

'USEPA Method 17' means the promulgated Test Method 17 – Determination of Particulate Matter Emissions from Stationary Sources;

'USEPA Method 26' means the promulgated Test Method 26 - Determination of Hydrogen Halide and Halogen Emissions from Stationary Sources Non Isokinetic Method;

'USEPA Method 26A' means the promulgated Test Method 26A - Determination of Hydrogen Halide and Halogen Emissions from Stationary Sources Isokinetic Method;

'usual working day' means 0800 – 1700 hours, Monday to Friday excluding public holidays in Western Australia;

1.1.3 Any reference to an Australian or other standard in the Licence means the relevant parts of the standard in force from time to time during the term of this Licence.

1.1.4 Any reference to a guideline or code of practice in the Licence means the current version of the guideline or code of practice in force from time to time, and shall include any amendments or replacements to that guideline or code of practice made during the term of this Licence.

1.2 General conditions

1.2.1 Nothing in the Licence shall be taken to authorise any emission that is not mentioned in the Licence, where the emission amounts to:

- (a) pollution;
- (b) unreasonable emission;
- (c) discharge of waste in circumstances likely to cause pollution; or
- (d) being contrary to any written law.

1.2.2 The Licensee shall operate and maintain all pollution control and monitoring equipment to the manufacturer's specification or any relevant and effective internal management system.

1.2.3 The Licensee, except where storage is prescribed in section 1.3, shall ensure that environmentally hazardous materials are stored in accordance with the code of practice for the storage and handling of dangerous goods.

1.2.4 The Licensee shall immediately recover, or remove and dispose of spills of environmentally hazardous materials outside an engineered containment system.

1.3 Premises operation

There are no specified conditions relating to Premises operation in this section.



2 Emissions

2.1 General

- 2.1.1 The Licensee shall record and investigate the exceedance of any descriptive or numerical limit or target specified in any part of section 2 of this Licence.

2.2 Point source emissions to air

- 2.2.1 The Licensee shall ensure that where waste is emitted to air from the emission points in Table 2.2.1 and identified on the map of emission points in Schedule 1 it is done so in accordance with the conditions of this Licence.

Table 2.2.1: Emission points to air				
Emission point reference and location on Map of emission points	Emission Point reference on Map of emission points	Emission Point and source	Emission point height (m)	Source, including any abatement
A1	Kiln stack	Kiln exhaust stack	35	Kiln exhaust gases via dry injection fabric filter (DIFF) scrubber dosed with alkaline scrubbing reagent

- 2.2.2 The Licensee shall not cause or allow point source emissions to air greater than the limits listed in Table 2.2.2.

Table 2.2.2: Point source emission limits to air			
Emission point reference	Parameter	Limit (including units) ¹	Averaging period
A1	Total oxides of sulphur (as SO ₂)	200 mg/m ³	Stack Test (Minimum 60 minute average)
	Hydrogen chloride	100 mg/m ³	Stack Test (Minimum 30 minute average)
	Hydrogen fluoride	20 mg/m ³	Stack Test (Minimum 30 minute average)

Note 1: The reference conditions of substances in releases to air from the kiln stack are:
Temperature 273.15 K (0°C), pressure 101.3 kPa (1 atmosphere) 18% oxygen, measured dry.



2.2.3 The Licensee shall take the specified management action in the case of an event in Table 2.2.3.

Table 2.2.3: Management actions			
Emission point reference	Event / action reference	Event	Management action
A1	EA1	Abatement Plant Bypass for essential maintenance, operational or safety reasons.	If the Abatement Plant Bypass is expected to occur for more than 30 minutes, the Licensee shall notify DER in accordance with Condition 5.3.1 The Licensee shall take all practical measures to ensure that the HF emissions do not exceed the Limit specified in Condition 2.2.2 and the mass emission rate of 1g/s.
A1	EA2	Failure or malfunction of plant or equipment leading to Abatement Plant Bypass	The Licensee shall take all practical measures to ensure that the HF emissions do not exceed the Limit specified in Condition 2.2.2 and the mass emission rate of 1g/s.
A1	EA3	Abatement Plant Bypass during start-up and shut down	The Licensee shall take all practical measures to minimise emissions during start-up and shut-down The Licensee shall take all practical measures to ensure that the HF emissions do not exceed the Limit specified in Condition 2.2.2 and the mass emission rate of 1g/s.

2.3 Point source emissions to surface water

There are no specified conditions relating to point source emissions to surface water in this section.

2.4 Point source emissions to groundwater

There are no specified conditions relating to point source emissions to groundwater in this section.

2.5 Point source emissions to land

There are no specified conditions relating to point source emissions to land in this section.

2.6 Fugitive emissions

2.6.1 The Licensee shall use all reasonable and practical measures to prevent and where that is not practicable to minimise dust emissions from the Premises.



2.7 Odour

- 2.7.1 The Licensee shall ensure that odour emitted from the Premises does not unreasonably interfere with the health, welfare, convenience, comfort or amenity of any person who is not on the Premises.

2.8 Noise

There are no specified conditions relating to noise in this section.

3 Monitoring

3.1 General monitoring

- 3.1.1 The licensee shall ensure that all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured unless indicated otherwise in the relevant table.
- 3.1.2 The Licensee shall ensure that quarterly monitoring is undertaken at least 45 days apart.
- 3.1.3 The Licensee shall record production or throughput data and any other process parameters relevant to any non-continuous or CEMS monitoring undertaken.
- 3.1.4 The Licensee shall ensure that all monitoring equipment used on the Premises to comply with the conditions of this Licence is calibrated in accordance with the manufacturer's specifications or any relevant and effective internal management system.
- 3.1.5 The Licensee shall, where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements, bring these issues to the attention of the CEO accompanied with a report comprising details of any modifications to the methods.



3.2 Monitoring of point source emissions to air

3.2.1 The Licensee shall undertake the monitoring in Table 3.2.1 according to the specifications in that table.

Table 3.2.1: Monitoring of point source emissions to air					
Emission point reference	Parameter	Units ¹	Frequency	Method	Averaging period
A1	Total particulates	mg/m ³	Quarterly	USEPA Method 5 or 17	Stack test (Minimum 60 minute average)
		g/s			
	Total oxides of sulphur (as SO ₂)	mg/m ³	Quarterly	USEPA Method 8	Stack test (Minimum 60 minute average)
		g/s			
	Oxides of nitrogen (as NO ₂)	mg/m ³	Quarterly	USEPA Method 7E	Stack test (Minimum 30 minute average)
		g/s			
	Hydrogen chloride	mg/m ³	Quarterly	USEPA Method 26 or 26A	Stack test (Minimum 60 minute average)
		g/s			
	Hydrogen fluoride	mg/m ³	Quarterly	USEPA Method 26 or 26A	Stack test (Minimum 60 minute average)
		g/s			
	Carbon monoxide	mg/m ³	Quarterly	USEPA Method 10	Stack test (Minimum 30 minute average)
		g/s			

Note 1: The reference conditions of substances in releases to air from the kiln stack are:
Temperature 273.15 K (0°C), pressure 101.3 kPa (1 atmosphere) 18% oxygen, measured dry.

3.2.2 The Licensee shall ensure that sampling required under Condition 3.2.1 of the Licence is undertaken at sampling locations in accordance with the AS 4323.1 or relevant part of the CEMS Code.

3.2.3 The Licensee shall ensure that all non-continuous sampling and analysis undertaken pursuant to condition 3.2.1 is undertaken by a holder of NATA accreditation for the relevant methods of sampling and analysis.

3.3 Monitoring of point source emissions to surface water

There are no specified conditions relating to monitoring of point source emissions to surface water in this section.

3.4 Monitoring of point source emissions to groundwater

There are no specified conditions relating to monitoring of point source emissions to groundwater in this section.

3.5 Monitoring of emissions to land

There are no specified conditions relating to monitoring of emissions to land in this section.



3.6 Monitoring of inputs and outputs

There are no specified conditions relating to monitoring of inputs and outputs in this section.

3.7 Process monitoring

There are no specified conditions relating to process monitoring in this section.

3.8 Ambient environmental quality monitoring

- 3.8.1 The Licensee shall undertake the monitoring in Table 3.8.1 according to the specifications in that table.

Table 3.8.1: Monitoring of ambient air quality

Monitoring point reference and location on Premises map	Parameter	Units	Averaging period	Frequency	Method
AQ1 and AQ2 (Clayton St / Wildon St junction)	Hydrogen fluoride ¹	µg/m ³	7 days	Continuous	AS3580.13.2

Note 1: Samples may be submitted to a laboratory without current NATA accreditation for the parameter to be measured.

- 3.8.2 The Licensee shall ensure that, where practicable, the siting of ambient air monitoring equipment is in accordance with AS 3580.1.1.

3.9 Meteorological monitoring

There are no specified conditions relating to meteorological monitoring in this section.



4 Improvements

4.1 Improvement program

4.1.1 The Licensee shall complete the improvements in Table 4.1.1 by the date of completion in Table 4.1.1.

Table 4.1.1: Improvement program

Reference	Improvement	Date of completion
IR1	<p>The Licensee shall submit to the CEO an Abatement Plant Bypass Management Plan. The Plan shall include but not be limited to:</p> <ul style="list-style-type: none">(i) Identification of root-causes which may lead to Abatement Plant Bypass;(ii) Procedures for estimation of the characteristics and quantity of the emission and assessment of potential environmental impact from each bypass event. This should consider:<ul style="list-style-type: none">(a) concentration or mass flow of contaminants and duration of bypass;(b) assessment of worst case emission scenario during the bypass event, comparison of potential emissions during bypass with current licence limits;(c) criteria for assessment of significance of potential bypass emissions, likely impact on the environment and measures to be implemented to minimise duration and frequency of the bypass;(d) identification of receptors and their geographical location; and(e) complaints management procedure; and(iii) Recordkeeping procedures for identifying all Abatement Plant Bypass events including the date, time, duration, reason for the bypass, characteristics of the emissions;	30 September 2015
IR2	<p>The Licensee shall review their kiln management operations and procedures to identify and investigate any mechanisms whereby kiln gases could be released to the environment. As a minimum, the investigation shall include monitoring of following emission sources:</p> <ul style="list-style-type: none">(i) Dryer 1 stack and Dryer 2 stack;(ii) High temperature take-off duct;(iii) Low temperature take-off duct;(iv) Vestibule fan exhaust;(v) Kiln stack; and(vi) Kiln exhaust pre-scrubber. <p>For each potential emission source, the Licensee shall estimate:</p> <ul style="list-style-type: none">(i) the potential frequency and duration of a release; and(ii) the mass emission rate of pollutants in the release. <p>The Licensee shall undertake assessment of mass emission rates based on a comprehensive emissions monitoring programme for the emission sources identified above. Monitoring of emissions shall be conducted in compliance with requirements specified in Section 3.1 and Section 3.2 of the Licence.</p> <p>At the conclusion of the above investigation, the Licensee shall</p>	31 December 2015



	submit to the CEO an assessment of the data collected, monitoring reports used in the assessment and include proposals, with timescales, to undertake any reasonably practicable improvements to ensure unauthorised releases are prevented or minimised.	
IR3	<p>The Licensee shall submit a Continuous Emissions Monitoring System (CEMS) Implementation Plan for monitoring temperature, flow rate, oxygen, HF, HCl, particulates, SO₂, opacity, CO and NOx emissions from emission point A1. The Plan shall include but not be limited to the following:</p> <ul style="list-style-type: none">(i) Identification of the CEMS technology of choice in accordance with the CEMS code; and(ii) Timeframe for installation, calibration and operation of the CEMS; and <p>Proposed action plan, which addresses any constraints identified, with the objective of having the CEMS technology identified above operational as early as possible.</p>	31 December 2015
IR4	<p>The Licensee shall submit to the CEO a Stormwater Management Plan. The Plan shall include but not be limited to:</p> <ul style="list-style-type: none">(i) Identification of activities that could cause stormwater to become contaminated and any potential contaminants;(ii) Operational measures to prevent contamination of stormwater;(iii) Measures for containment or treatment of contaminated or potentially contaminated stormwater generated from activities on the Premises;(iv) Diagram or plan identifying existing stormwater management drains on the premises and containment ponds;(v) Assessment of adequacy of existing infrastructure to prevent or minimise stormwater contamination;(vi) Information on maintenance schedule and procedures for existing infrastructure for stormwater conveyance and containment; and(vii) Identification of improvements required to stormwater management on the Premises, including requirement of any monitoring regimen, implementation proposal for the improvements identified and timeframe for the same.	30 September 2015



5 Information

5.1 Records

5.1.1 All information and records required by the Licence shall:

- (a) be legible;
- (b) if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
- (c) except for records listed in 5.1.1(d) be retained for at least 6 years from the date the records were made or until the expiry of the Licence or any subsequent licence; and
- (d) for those following records, be retained until the expiry of the Licence and any subsequent licence:
 - (i) off-site environmental effects; or
 - (ii) matters which affect the condition of the land or waters.

5.1.2 The Licensee shall ensure that:

- (a) any person left in charge of the Premises is aware of the conditions of the Licence and has access at all times to the Licence or copies thereof; and
- (b) any person who performs tasks on the Premises is informed of all of the conditions of the Licence that relate to the tasks which that person is performing.

5.1.3 The Licensee shall complete an Annual Audit Compliance Report indicating the extent to which the Licensee has complied with the conditions of the Licence, and any previous licence issued under Part V of the Act for the Premises for the previous annual period.

5.1.4 The Licensee shall:

- (a) implement a complaints management system that shall record the following information (if known or provided) about complaints received at the Premises concerning any environmental impact of the activities undertaken at the Premises:
 - (i) name and address of the complainants (if consented);
 - (ii) date and time of complaint;
 - (iii) date and time of alleged incident;
 - (iv) alleged source of the incident;
 - (v) general description of the alleged incident, including any environmental or health impacts reported by the complainant;
 - (vi) wind direction, wind speed and temperature at time of alleged incident;
 - (vii) likely source of the alleged incident; and
 - (viii) actions taken by licensee to address complaint, including the outcome of any investigation(s) and action(s) to verify any impacts.
- (b) complete an annual analysis and review of complaints recorded under 5.1.4(a) to identify any common factors and root cause of complaints and proposals to address these.



5.2 Reporting

5.2.1 The Licensee shall submit to the CEO an Annual Environmental Report within 28 calendar days after the end the annual period. The report shall contain the information listed in Table 5.2.1 in the format or form specified in that table.

Table 5.2.1: Annual Environmental Report		
Condition or table (if relevant)	Parameter	Format or form ¹
-	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken	None specified
Table 2.2.3	Abatement Plant Bypass events including the date, time, duration, reason for the by-pass, potential contaminants in the emission, estimation of the quantity of each identified contaminant emitted and assessment of potential environmental impact	None specified
-	Summary of dust management plan review	None specified
Table 3.2.1	Summary and review of emissions to air monitoring results	Include a graphical presentation of quarterly monitoring data collected over a minimum 3 year period
Table 3.8.1	Summary and review of ambient air monitoring results	
5.1.3	Compliance	Annual Audit Compliance Report (AACR)
5.1.4	Complaints summary	None specified

Note 1: Forms are in Schedule 2

5.2.2 The Licensee shall ensure that the Annual Environmental Report also contains:

- (a) any relevant process, production or operational data recorded under Condition 3.1.3; and
- (b) an assessment of the information contained within the report against previous monitoring results and Licence limits and/or targets.



5.2.3 The Licensee shall submit the information in Table 5.2.2 to the CEO according to the specifications in that table.

Table 5.2.2: Non-annual reporting requirements				
Condition or table (if relevant)	Parameter	Reporting period	Reporting date (after end of the reporting period)	Format or form^{1,2}
-	Copies of original monitoring reports submitted to the Licensee by third parties	Not Applicable	Within 14 days of the CEOs request	As received by the Licensee from third parties

Note 1: Forms are in Schedule 2

Note 2: Where more than one representative sample is collected in accordance with condition 3.2.1, the results of all analyses, together with the average are to be reported.

5.3 Notification

5.3.1 The Licensee shall ensure that the parameters listed in Table 5.3.1 are notified to the CEO in accordance with the notification requirements of the table.

Table 5.3.1: Notification requirements			
Condition or table (if relevant)	Parameter	Notification requirement¹	Format or form²
3.1.5	Calibration report	As soon as practicable.	None specified
2.1.1	Breach of any limit specified in the Licence	Part A: As soon as practicable but no later than 5pm of the next usual working day after becoming aware of the exceedance	Form N1
-	Any failure or malfunction of any pollution control equipment or any incident, which has caused, is causing or may cause pollution	Part B: As soon as practicable but within seven days of becoming aware of that exceedance.	
	Scheduled/ Planned by-pass of the Abatement Plant for testing	At least 7 days before	None specified
	Any failure or malfunction of plant or equipment resulting in the Abatement Plant Bypass	As soon as practicable but no later than 5pm of the next usual working day when the Abatement Plant Bypass occurs	None specified

Note 1: Notification requirements in the licence shall not negate the requirement to comply with s72 of the Act

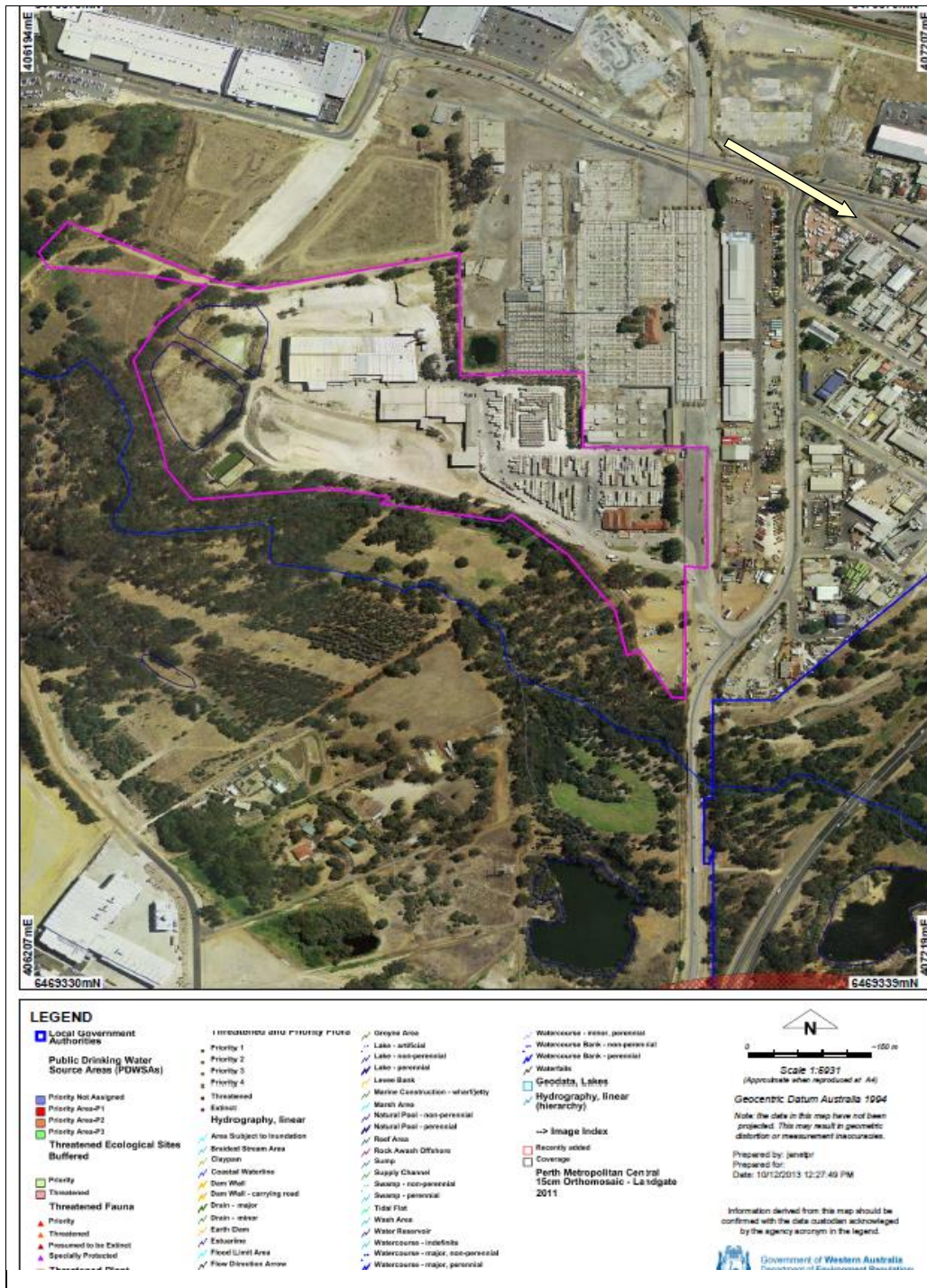
Note 2: Forms are in Schedule 2



Schedule 1: Maps

Premises map

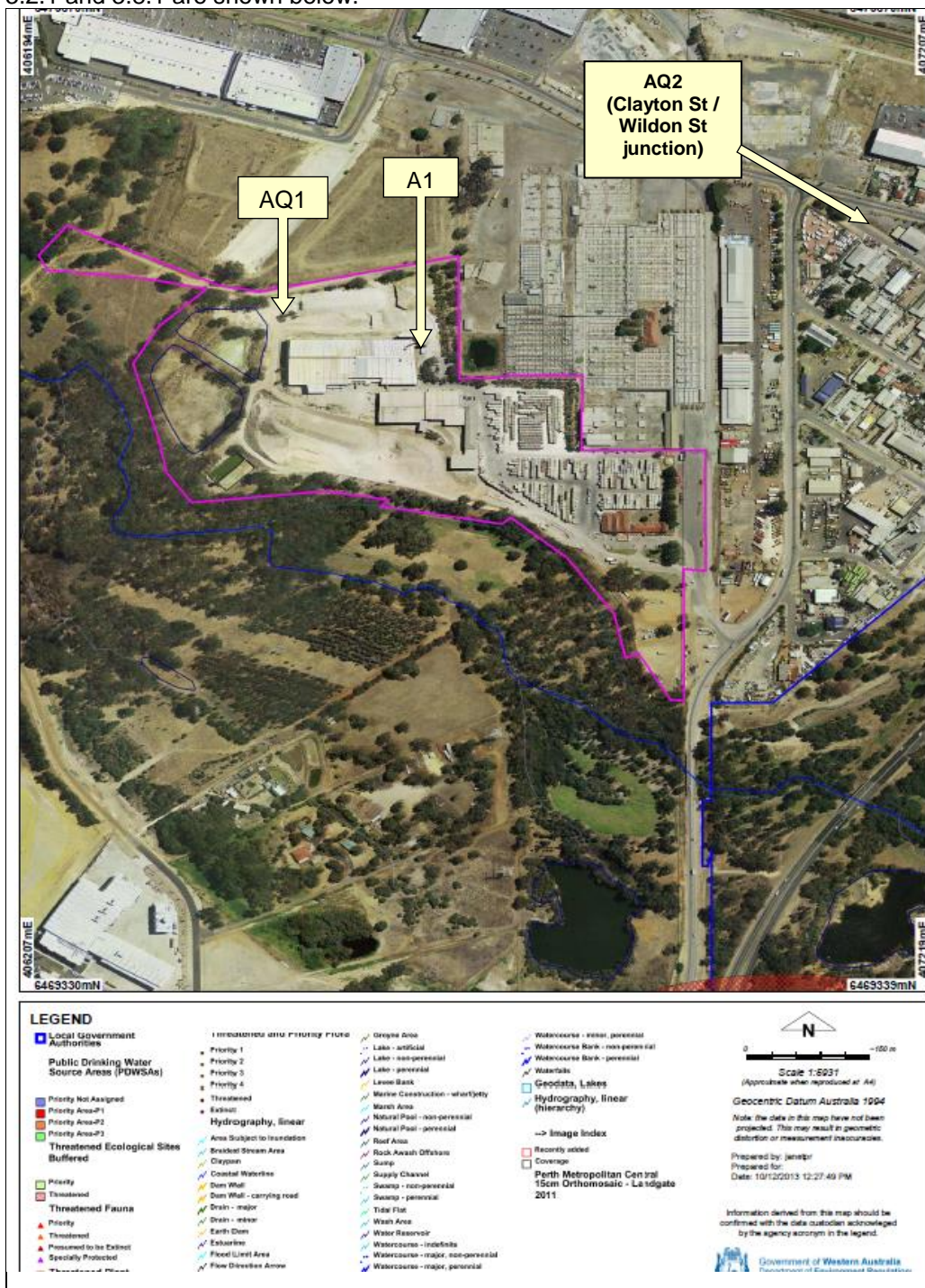
The Premises location is shown on the map below. The pink line depicts the Premises boundary.





Map of emission points and monitoring locations

The locations of the emission points defined in Tables 2.2.1 and monitoring points defined in Table 3.2.1 and 3.8.1 are shown below.





Schedule 2: Reporting & notification forms

These forms are provided for the proponent to report monitoring and other data required by the Licence. They can be requested in an electronic format.

ANNUAL AUDIT COMPLIANCE REPORT PROFORMA

SECTION A

LICENCE DETAILS

Licence Number:	Licence File Number:
Company Name:	ABN:
Trading as:	
Reporting period: _____ to _____	

STATEMENT OF COMPLIANCE WITH LICENCE CONDITIONS

1. Were all conditions of the licence complied with within the reporting period? (please tick the appropriate box)

Yes ☐ Please proceed to Section C

No ☐ Please proceed to Section B

Each page must be initialled by the person(s) who signs Section C of this Annual Audit Compliance Report (AACR).

Initial:



SECTION B

DETAILS OF NON-COMPLIANCE WITH LICENCE CONDITION.

Please use a separate page for each licence condition that was not complied with.

a) Licence condition not complied with:	
b) Date(s) when the non compliance occurred, if applicable:	
c) Was this non compliance reported to DER?:	
<input type="checkbox"/> Yes <input type="checkbox"/> Reported to DER verbally Date _____ <input type="checkbox"/> Reported to DER in writing Date _____	<input type="checkbox"/> No
d) Has DER taken, or finalised any action in relation to the non compliance?:	
e) Summary of particulars of the non compliance, and what was the environmental impact:	
f) If relevant, the precise location where the noncompliance occurred (attach map or diagram):	
g) Cause of noncompliance:	
h) Action taken, or that will be taken to mitigate any adverse effects of the non compliance:	
i) Action taken or that will be taken to prevent recurrence of the non compliance:	

Each page must be initialled by the person(s) who signs Section C of this AACR

Initial:



SECTION C

SIGNATURE AND CERTIFICATION

This Annual Audit Compliance Report (AACR) may only be signed by a person(s) with legal authority to sign it. The ways in which the AACR must be signed and certified, and the people who may sign the statement, are set out below.

Please tick the box next to the category that describes how this AACR is being signed. If you are uncertain about who is entitled to sign or which category to tick, please contact the licensing officer for your premises.

If the licence holder is		The Annual Audit Compliance Report must be signed and certified:
An individual	<input type="checkbox"/> <input type="checkbox"/>	by the individual licence holder, or by a person approved in writing by the Chief Executive Officer of the Department of Environment Regulation to sign on the licensee's behalf.
A firm or other unincorporated company	<input type="checkbox"/> <input type="checkbox"/>	by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
A corporation	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	by affixing the common seal of the licensee in accordance with the Corporations Act 2001; or by two directors of the licensee; or by a director and a company secretary of the licensee, or if the licensee is a proprietary company that has a sole director who is also the sole company secretary – by that director, or by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
A public authority (other than a local government)	<input type="checkbox"/> <input type="checkbox"/>	by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
a local government	<input type="checkbox"/> <input type="checkbox"/>	by the chief executive officer of the licensee; or by affixing the seal of the local government.

It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular. There is a maximum penalty of \$50,000 for an individual or body corporate.

I/We declare that the information in this annual audit compliance report is correct and not false or misleading in a material particular.

SIGNATURE: _____

SIGNATURE: _____

NAME:
(printed) _____

NAME:
(printed) _____

POSITION: _____

POSITION: _____

DATE: ____/____/____

DATE: ____/____/____



Licence: L6162/1986/15
Form: AAQ1
Name: Monitoring of ambient air
Period:

Licensee: Austral Bricks (WA) Pty Ltd
Premises: Bellevue

Form AAQ1: Ambient air quality monitoring

Emission point	Parameter	Result	Unit	Averaging period	Method	Sample date & times
AQ1	Hydrogen fluoride		µg/m ³			
AQ2			µg/m ³			

Signed on behalf of Austral Bricks (WA) Pty Ltd: Date:



Licence: L6162/1986/15
Form: N1
Date of incident:

Licensee: Austral Bricks (WA) Pty Ltd
Premises: Bellevue

Notification of detection of the breach of a limit or any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution.

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

Part A

Licence Number	
Name of operator	
Location of Premises	
Time and date of the detection	

Notification requirements for the breach of a limit

Emission point reference/ source	
Parameter(s)	
Limit	
Measured value	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Notification requirements for any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution

Date and time of event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken , or intended to be taken, to stop any emission	
Description of the failure or accident	



Part B

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident.	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission.	
The dates of any previous N1 notifications for the Premises in the preceding 24 months.	

Name	
Post	
Signature on behalf of Austral Bricks (WA) Pty Ltd	
Date	



Decision Document

Environmental Protection Act 1986, Part V

Proponent: Austral Bricks (WA) Pty Ltd
Licence: L6162/1986/15

Registered office: 738 - 780 Wallgrove Road
HORSLEY PARK NSW 2175

ACN: 079 711 603

Premises address: Austral Bricks Bellevue
Lot 1 on Plan 16497
Military Road
BELLEVUE WA 6056

Issue date: Monday, 29 June 2015

Commencement date: Wednesday, 1 July 2015

Expiry date: Saturday, 30 June 2018

Decision

Based on the assessment detailed in this document the Department of Environment Regulation (DER), has decided to issue a licence. DER considers that in reaching this decision, it has taken into account all relevant considerations.

Decision Document prepared by:

Gargi Joshi
Licensing Officer

Decision Document authorised by:

Ed Schuller
Manager Licensing



Contents

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1 Purpose of this Document	2
2 Administrative summary	3
3 Executive summary of proposal and assessment	4
4 Decision table	5
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1 Purpose of this Document

This decision document explains how DER has assessed and determined the application and provides a record of DER's decision-making process and how relevant factors have been taken into account. Stakeholders should note that this document is limited to DER's assessment and decision making under Part V of the *Environmental Protection Act 1986*. Other approvals may be required for the proposal, and it is the proponent's responsibility to ensure they have all relevant approvals for their Premises.

Works approval and licence conditions

DER has three types of conditions that may be imposed on works approvals and licences. They are as follows;

Standard conditions (SC)

DER has standard conditions that are imposed on all works approvals and licences regardless of the activities undertaken on the Premises and the information provided in the application. These are included as the following conditions on works approvals and licences:

Works approval conditions: 1.1.1-1.1.4, 1.2.1, 1.2.2, 5.1.1 and 5.1.2.

Licence conditions: 1.1.1-1.1.4, 1.2.1-1.2.4, 5.1.1-5.1.4 and 5.2.1.

For such conditions, justification within the Decision Document is not provided.

Optional standard conditions (OSC)

In the interests of regulatory consistency DER has a set of optional standard conditions that can be imposed on works approvals and licences. DER will include optional standard conditions as necessary, and are likely to constitute the majority of conditions in any licence. The inclusion of any optional standard conditions is justified in Section 4 of this document.

Non standard conditions (NSC)

Where the proposed activities require conditions outside the standard conditions suite DER will impose one or more non-standard conditions. These include both premises and sector specific conditions, and are likely to occur within few licences. Where used, justification for the application of these conditions will be included in Section 4.



2 Administrative summary

Administrative details		
Application type	Works Approval <input type="checkbox"/> New Licence <input checked="" type="checkbox"/> Licence amendment <input type="checkbox"/> Works Approval amendment <input type="checkbox"/>	
Activities that cause the premises to become prescribed premises	Category number(s)	Assessed design capacity
	41	200 000 tonnes per annual period
Application verified	Date: 28/04/2015	
Application fee paid	Date: 06/05/2015	
Works Approval has been complied with	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
Compliance Certificate received	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
Commercial-in-confidence claim	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Commercial-in-confidence claim outcome		
Is the proposal a Major Resource Project?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ?	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"/>
Is the proposal subject to Ministerial Conditions?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Ministerial statement No: EPA Report No:
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i>)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Department of Water consulted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises within an Environmental Protection Policy (EPP) Area Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes include details of which EPP(s) here.		
Is the Premises subject to any EPP requirements? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes, include details here, eg Site is subject to SO ₂ requirements of Kwinana EPP.		



3 Executive summary of proposal and assessment

The Austral Bricks Bellevue premises has been in operation since 1989 and manufactures various clay/ ceramic products including bricks, pavers and special shapes. The site covers an area of 26 ha and is approximately 1 km from the Midland Sub-Regional Centre. Various commercial premises are located nearby. Midland Health Campus will be located in vicinity of the Premises. The Helena River flood plain lies to the southern and western boundaries of the premises.

The premises includes;

- Raw material stockpile areas;
- Primary and secondary crusher and screens;
- Extruder;
- Dryer;
- Gas fired tunnel kiln;
- Kiln exhaust gas abatement plant (dry injection fabric filter).

Manufacture of bricks and tiles involves four main stages;

Clay preparation involves grinding and crushing of clays, blending of different clay types and addition of water. Colorants or materials to improve the mechanical properties of the finished product may also be added.

Product shaping covers shaping the raw material mix into shapes using moulds or by extrusion. During or after shaping, additives may be applied to the surface of the raw clay shapes to achieve desired colour or texture effects.

Drying of the shaped products is undertaken by passing them through a dryer, heated by warm air from the cooling zone of the kiln. Exhaust gases from the dryer are vented to atmosphere.

Firing of the dried shapes is undertaken in a high temperature gas fired tunnel kiln. As the clay products are heated, fluoride, chloride, sulphur and other elements naturally present in the clays are emitted into the air in the kiln, along with more water vapour. The fluoride release rate varies over the firing cycle and peaks at temperatures of around 800°C, depending on the raw material, product and kiln conditions. Some of the raw material additives are also burnt off during firing.

Kiln exhaust gas emissions are discharged to air after being abated through a four chamber Dry Injection Fabric Filter (DIFF) scrubber dosed with an alkaline scrubbing reagent. The principle emissions to air are acid chloride and fluoride gases, oxides of nitrogen, oxides of sulphur, VOCs and particulates. The abatement unit can be by-passed to undertake essential maintenance for critical operational or safety reasons.

The Licensee has prepared a dust management plan which specifies operational procedures and controls are used to minimise dust emissions from raw materials storage and handling operations. There are no authorised discharges to water or land from the premises.

This partial Decision Document is to support re-issue of the licence and to authorise operation of the Premises for a further 3 year period. DER has not undertaken a complete risk-assessment for emissions and discharges from the Premises. Improvement requirements have been prescribed based on findings of recent compliance inspections at the Premises, assessment of information submitted by the Licensee in response to previous improvement requirements and discussions with the Licensee with the objective to minimise potential environmental impacts from abatement plant bypass events.



4 Decision table

All applications are assessed in line with the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987*, DEC's Policy Statement - Limits and targets for prescribed premises (2006), and DER's Operational Procedure on Assessing Emissions and Discharges from Prescribed Premises. Where other references have been used in making the decision they are detailed in the decision document.

DECISION TABLE				
Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
Point source emissions to air including monitoring	L2.2.3	OSC OSC	<p>The Premises Dry Injection Fabric Filter (DIFF) scrubber with alkaline dosing to control emissions from the kiln prior to discharging to air. The abatement plant can be by-passed to undertake essential maintenance for critical operational or safety reasons. The Abatement plant is also by-passed for other reasons including kiln burners failure, kiln control issues, smoke gas fan failure or operational issues relating to DIFF scrubber.</p> <p>DER has reviewed the report titled <i>Austral Bricks Bellevue Environmental License Improvement Program- IR 3 and IR 4</i>, dated February 2015, authored by Strategen Environmental Consultants Pty Ltd. The report identifies that the Premises has consistently had a high number of bypass events each year (ranging between 232 to 699) for the period analysed (16/06/2009 – 20/11/2014), a large number of which can be attributed to issues relating to kiln or burner emissions or scrubber issues. IR 1 has been specified to manage potential emissions during bypass events. See improvements section for details.</p> <p>Condition L2.2.2 on previous licence specified management action to manage emissions during these abatement plant bypass events and required the Licensee to adjust the kiln throughput to avoid exceedance of HF limit specified on the licence if a bypass event had not ceased within 30 minutes. This text did not clarify actions the Licensee must undertake within first 30 minutes of the by-pass events and that the Licensee does not provide exemption from complying with limits specified during these by-pass events. This management action has been revised to clarify that the Licensee must take all appropriate actions to minimise emissions.</p>	<i>Austral Bricks Bellevue Environmental License Improvement Program- IR 3 and IR 4</i> , dated February 2015, authored by Strategen Environmental Consultants Pty Ltd



DECISION TABLE				
Works Approval / Licence section	Condition number W = Works Approval L= Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
Fugitive emissions	L2.6.1	OSC NSC	<p>OSC 2.6.1 included on previous licence stated that upon completion of the improvement requirement requiring submission of dust management plan, the licensee shall use all reasonable and practicable measures to prevent or minimise dust emissions from the Premises. The licensee has submitted the dust management plan which is considered internal control strategy. OSC 2.6.1 has been updated to reflect this and does not include any other change to condition text or intent.</p> <p>OSC 2.6.2 included on previous licence required the Licensee to implement the dust management plan and to review it annually. This requirement has been retained through Annual Environmental Reporting requirement.</p>	<i>Dust Management Plan</i> Project Number TE14005, dated July 2014, authored by Talis Consultants Pty Ltd
Monitoring general	L3.1.1-L3.1.5	OSC	These conditions included on the previous licence have been updated to incorporate changes in accordance with licence template version update.	N/A
Ambient quality monitoring	L3.8.1	OSC	Previous licence allowed submission of ambient air quality monitoring samples to be submitted to a laboratory without current NATA accreditation. Austral have confirmed that analytical testing laboratory currently used by them does not hold NATA accreditation for HF analysis however is in the process of securing one. OSC 3.8.1 has been updated to provide exemption for HF analysis.	N/A
Improvements	IR, IR2, IR3, IR4	NSC	<p>Previous licence included improvement requirements requiring the Licensee to review kiln management operations and abatement plant by-pass events. DER has reviewed information submitted by the Licensee in the report titled <i>Austral Bricks Bellevue Environmental License Improvement Program- IR 3 and IR 4</i>, dated February 2015, authored by Strategen Environmental Consultants Pty Ltd (the Report).</p> <p>The Report identifies and groups different root causes for bypass. The Premises has consistently had multiple bypass events (ranging between 232 to 699) for the period analysed (16/06/2009 – 20/11/2014). A large number of these events have been attributed to issues relating to kiln or burner emissions or scrubber issues. The Report also notes gaps in Licensee's current recordkeeping procedures for bypass management. The report states that due to recent</p>	<i>Austral Bricks Bellevue Environmental License Improvement Program- IR 3 and IR 4</i> , dated February 2015, authored by Strategen Environmental Consultants Pty Ltd



DECISION TABLE				
Works Approval / Licence section	Condition number W = Works Approval L= Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
			<p>upgrades to the kiln control system and other kiln equipment, the reliability of kiln and frequency of by-pass events resulting from kiln control issues should decrease in future. At this stage, DER does not have sufficient data to verify this claim.</p> <p>By-passing of abatement plant has the potential to cause exceedance of stack emission limits and may contribute to significant contaminant concentrations being released into the environment unless the bypass event is adequately managed through operational controls. At this stage, DER does not have sufficient information to comment on or accurately determine potential impact of various by-pass events described in the report on ambient air quality. IR1 has been included on the Licence requiring the Licensee to submit a Bypass Management Plan which details root-cause, procedures for estimation of emission quantity and characteristics, assessment criteria to determine significance of potential emission points and recordkeeping procedures.</p> <p>The Licensee has requested DER to consider removing HF ambient monitoring requirements. At this stage, information submitted by the Licensee does not adequately demonstrate how emissions are managed in terms of bypass/scrubber maintenance. Available information does not explain how short term peaks in emissions are managed and their potential environmental impact or provide adequate clarification on correlation between current ambient and stack monitoring data. The ambient monitoring program measures and reports emissions averaged over a 7 day period. This is not sufficient to detect the impact of short term emission peaks that would be expected during bypass events. In addition, DER does not have sufficient information to determine contribution of other emission sources from the premises on ambient air quality.</p> <p>Review of ambient air quality studies conducted in the past to assess potential impact of emissions from brickworks on Midland Health Campus identified that, while stack emissions from the Premises may have decreased following</p>	



DECISION TABLE				
Works Approval / Licence section	Condition number W = Works Approval L= Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
			<p>installation of a new scrubbing system, the ambient monitoring data does not show the decrease in concentrations corresponding to the decrease in stack emissions. This is likely to be due to another low elevation source that is not influenced by the new scrubbing system.</p> <p>Previous licence included improvement requirement (IR4) requiring the licensee to review kiln management operations and investigate mechanisms for release of kiln gases to the environment via unauthorised route. The Report submitted by the Licensee notes that emissions tests of the dryer, hot air and vestibule exhaust gases examined in the assessment are relatively small and there are uncertainties surrounding hot air flows during those tests. DER does not consider there is adequate information to justify the determination that emissions released from these sources are small. The Report does not clarify assumptions on process operating conditions considered to establish the mass balance, sampling protocol and whether concurrent sampling was conducted. In DER's view the report does not provide sufficient confidence in the mass balance established and has insufficient justification to support the conclusions drawn. The Report notes that additional testing could be conducted to determine current status of all emission sources.</p> <p>Information submitted by Licensee is not considered adequate to enable a complete risk assessment of emissions from sources other than the kiln stack. In light of this and to establish clear understanding of how process emissions from the premises impact ground level concentrations, the requirement for review of kiln management operations has been carried forward into this Licence through IR 2 . As a minimum, the investigation is required to include monitoring of following emission sources:</p> <ul style="list-style-type: none">(i) Dryer 1 stack and Dryer 2 stack;(ii) High temperature take-off duct;(iii) Low temperature take-off duct;(iv) Vestibule fan exhaust;	



DECISION TABLE				
Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
			<p>(v) Kiln stack; and (vi) Kiln exhaust pre-scrubber.</p> <p>IR 2 also requires the Licensee to establish a mass balance based on emissions monitoring data collected to assess contribution of non-kiln stack emissions to overall emissions from the premises. IR3 requires the Licensee to submit a continuous emissions monitoring system (CEMS) implementation plan for key contaminants from the premises including temperature, flow rate, oxygen, HF, HCl, particulates, SO₂, opacity, CO and NO_x emissions. CEMS monitoring data collected is to provide better representation of overall emissions profile from the kiln stack under all operating conditions.</p> <p><u>Emission Description</u> <i>Emission:</i> Stormwater contaminated with sediment from activities on the premises including raw material (clay) stockpile, by-product/ waste stockpile areas.</p> <p><i>Impact:</i> The premises are located adjacent to the Helena River and inadequate control of stormwater runoff from the premises may potentially lead to stormwater laden with sediment travelling offsite. Sediment contamination may impact the ecology of the river system, impacting animals, plants and water quality, specifically pH. During DER's compliance inspection on XX April, issues with stormwater management were identified, particularly in the north eastern end of the premises. There are numerous large by-product and waste stockpiles located in this area and stormwater was not draining effectively towards the sedimentation ponds or drains. Given the surface substrate, site layout and location the likelihood of sediment contaminated stormwater leaving the premises is considered possible, particularly during high rainfall events.</p>	



DECISION TABLE				
Works Approval / Licence section	Condition number W = Works Approval L= Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
			<p><i>Controls:</i> The Premises currently has sedimentation ponds for containing potentially contaminated stormwater which is then used for dust suppression. There is no direct discharge of stormwater offsite.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Possible <i>Risk Rating:</i> Moderate</p> <p><u>Regulatory Controls</u> The compliance inspection identified improvement opportunities for conveyance of contaminated stormwater within the premises and maintenance of stormwater ponds and drains. IR4 has been added requiring submission of a stormwater management plan. Following receipt of Austral's stormwater management plan required by IR4, DER will reassess the risk associated with potentially contaminated stormwater.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Possible <i>Risk Rating:</i> Moderate</p>	
Information	L5.2.1	OSC	Table 5.2.1 has been updated to clarify that information submitted by the Licensee in relation to abatement plant bypass event should include the date, time, duration, reason for the by-pass, characteristics of the emissions, estimation of the quantity of the emission, assessment of potential environmental impact . Reporting requirements have been updated to reflect that air emissions monitoring data and complaints summary is to be submitted annually instead of quarterly as required by previous licence.	



DECISION TABLE				
Works Approval / Licence section	Condition number W = Works Approval L= Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
Licence Duration	N/A	N/A	The premises has been ranked as a High risk premises. It is proposed to issue the licence for a period of 3 years.	



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
5/5/2015	Meeting between DER and Austral representative to discuss requested licence amendments.		
12/05/2015	Meeting minutes and consultation summary provided to proponent detailing discussions from meeting of 5 May 2015.	Minor comments received on 12 June 2015 requesting a time extension for the Bypass Management Plan which was due on 15 May 2015. Proponent also provided clarity on stormwater management.	Comments considered and addressed in Decision Document.
18/05/2015	Application advertised in West Australian (or other relevant newspaper)	No comments received.	Not applicable.
22/06/2015	Draft licence conditions sent to proponent for comment	Comments received on 25 June 2015	DER has considered comments provided and made changes where appropriate. For those changes requested by the licensee not incorporated, justification has been provided in the Decision Document.



6 Risk Assessment

Note: This matrix is taken from the DER Corporate Policy Statement No. 07 - Operational Risk Management

Table 1: Emissions Risk Matrix

Likelihood	Consequence				
	Insignificant	Minor	Moderate	Major	Severe
Almost Certain	Moderate	High	High	Extreme	Extreme
Likely	Moderate	Moderate	High	High	Extreme
Possible	Low	Moderate	Moderate	High	Extreme
Unlikely	Low	Moderate	Moderate	Moderate	High
Rare	Low	Low	Moderate	Moderate	High