

Licence No. 1126

ISSUED:

EXPIRY:

ACN:

ADELAIDE BRIGHTON CEMENT LIMITED

Victoria & Elder Roads, PETERHEAD SA 5016

Environmental Authorisation under Part 6 of the Environment Protection Act 1993

South Australian Environment Protection Authority GPO Box 2607 Adelaide SA 5001 Tel: 08 8204 2004





Environment Protection Authority

LICENCE NUMBER: 1126

LICENSEE DETAILS

Licence Holder: ADELAIDE BRIGHTON CEMENT LIMITED

Premises Address(es): Victoria & Elder Roads, PETERHEAD SA 5016

LICENSED ACTIVITIES

The Licensee is authorised to undertake, at the location(s) shown above, the following prescribed activities of environmental significance under Schedule 1 Part A of the Act, subject to the conditions in this Licence set out below:

2(3) Cement works

3(4) Activities producing listed wastes

7(1) Bulk shipping facilities

7(3)(c) Crushing, grinding or milling works (rock, ores or minerals)

8(2)(a) Fuel burning coal or wood 8(2)(a) Fuel burning not coal or wood

TERMS OF LICENCE

Commencement Date:

Expiry Date:

Table of Contents

What is an EPA licence?	5
What is the purpose of a licence?	5
Compliance with the licence	5
Incident notification	5
Responsibilities under Environment Protection Legislation	5
Public Register Information	5
Definitions	6
Acronyms	9
Conditions of Licence	10
Attachments	20

What is an EPA licence?

The EPA imposes conditions through a licence to regulate activities that have the potential to harm the environment. Any person or company undertaking these types of activities may need an EPA licence, as required by the *Environment Protection Act 1993*. The term of a licence is generally five years, but can vary from one to 10 years based on the EPA's assessment of the risk or duration of the activity.

What is the purpose of a licence?

A licence is an enforceable agreement between the EPA and the licensee that sets out the minimum acceptable environmental standards to which the licensee must perform. We consider how high the environmental risk is likely to be from the licensed activities, when setting conditions of the licence. Subsequently, environmental licences are unique and may be developed to focus on any or all of the following objectives:

- documentation of the requirements of a licensee under existing regulations
- facilitating the attainment of environmental performance standards of the licensee
- facilitating the alignment of the behaviour of the licensee with the core environmental objectives required under the Environment *Protection Act 1993* and related policies

The Act also requires that all reasonable and practical measures are taken to protect, restore and enhance the quality of the environment, including requiring persons engaged in polluting activities to progressively make environmental improvements. This will affect how the minimum acceptable standards are determined and reflected in licences.

Compliance with the licence

It is serious offence to breach an EPA licence and could result in a maximum fine of \$120,000 for bodies corporate. It is also an offence to provide false or misleading information and can result in a maximum fine of \$60,000 for bodies corporate.

The EPA also uses a number of enforcement tools to manage non compliance with licence conditions in accordance with the <u>Compliance and Enforcement Guideline</u>. The EPA can vary the conditions of this licence in accordance with section 45 of the Act. This licence can be suspended, cancelled or surrendered during the term of the licence in accordance with sections 55 and 56 of the Act.

Incident notification

The Licensee must report to the EPA (on EPA emergency phone number 1800 100 833) all incidents causing or threatening serious or material environmental harm, upon becoming aware of the incident, in accordance with section 83 of the Act. In the event that the primary emergency phone number is out of order, the Licensee should phone (08) 8204 2004.

Responsibilities under Environment Protection Legislation

The Licensee must be aware of and comply with their obligations under;

- The Environment Protection Act 1993
- The Environment Protection Regulations 2009
- The Environment Protection Policies made under the Environment Protection Act 1993
- The requirements of any National Environment Protection Measure which operates as an Environment Protection Policy under the *Environment Protection Act 1993*

Public Register Information

The EPA maintains a Public Register that is available to the public. Information maintained includes issued Environmental Authorisations (Licences, Exemptions & Works Approvals), Emergency Authorisations and various submitted Applications. Should the conditions of an Environmental Authorisation require that the Holder submit a report or other information to the EPA, then that submitted information is made available on the Public Register subject to commercial confidentiality? Endorsed Public Register information may be available on the EPA website.

Definitions

Unless the contrary intention appears, terms used in this licence that are defined in the Act (including any regulations or environment protection policies made pursuant to the Act) have the respective meanings assigned to those terms by the Act.

THE ACT: The Environment Protection Act 1993

PREMISES: The whole of the land comprised in Titles Register - Certificate of Title, Crown Lease and Crown Record:

CT6145/889 CT6145/895 CT6145/889 CT6145/895 CT6145/892 CT6146/576 CT5093/891 CT5406/509 CT5858/225 CT5971/472 CT5859/940 CT5971/491 CT5859/941 CT5971/484 CT5858/223 CT5980/56 CT5858/222 CT5683/196 CT5683/197 CT5142/526 CT5142/536 CT5142/529 CT5142/524 CT5142/525 CT5143/727 CT5113/380 CT5142/403 CT5109/519 CT5109/522 CT5109/520 CT5109/521 CT5386/274 CT5142/527 CT5117/132 CT5218/551 CT5142/517 CT5142/518 CT5142/519 CT5084/747 CT5142/534 CT5142/533

CT5142/531 CT5142/532 CT5142/523

Page 6 of 20

CT5142/522 CT5142/528 CT5142/520 CT5142/521 CT5142/401 CT5142/617 CT5142/623 CT5142/530 CT5142/399 CT5217/427 CT5217/428 CT5117/130 CT5117/131 CT5980/68 CT5980/55 CT5980/60 CT5485/422 CT5411/669 CT5683/195 CT5750/769 CT5750/770 CT5742/582 CT5742/581 CT5813/976 CT5816/637 CT5816/2 CT5841/73 CT5683/198 CT6007/792 CT5142/535 CT6027/127 CT6027/128 CT6053/766 CT6053/767 CT6053/768 CT5968/732 CT6057/915 CT6057/913 CT6057/917 CT6057/918 CT6057/920 CT6057/921 CT6057/922 CT6057/914 CT6057/916 CT6087/695 CT6087/694 CT6087/700 CT6087/696 CT6087/697 CT6087/698

CT6087/701 CT6087/702

CT6087/699 CT6126/858 CT6085/677 CT6085/679 CT6130/500 CT6126/854 CT6115/648 CT6057/936 CT6057/935 CT6057/934 CT6057/933 CT6057/932 CT6057/931 CT6057/930 CT6057/929 CT6057/928 CT6057/927

> CT6057/926 CT6057/925 CT6057/924 CT6057/923

24 HOUR AVERAGE: Calendar day average

AUTHORISATION FEE PAYMENT DATE: means the anniversary of the grant or renewal of this authorisation.

CERTIFIED TYPE B GAS APPLIANCE: means an appliance with a gas consumption in excess of 10 megajoules per hour which has been certified under the Gas Act 1997 as meeting the requirements of AS3814 and AS/NZS5601.

CONTAMINATED STORMWATER: is as defined in the Environment Protection (Water Quality) Policy 2015.

CONTROLLED WASTE: means any wastes of a category listed in Column 1 of the Table in Schedule 1 that has 1 or more characteristics listed in the Table in Schedule 2 of the Environment Protection (movement of Controlled Waste) Policy 2014.

DESTINATION FACILITY: 'Destination Facility' in relation to a consignment of controlled waste means the depot, facility or works to which the waste is, or is to be delivered under the consignment.

ENVIRONMENTAL HARM: means the same as is defined in section 5 of the Environment Protection Act 1993.

LISTED WASTE: means wastes listed in Part B of Schedule 1 of the Environment Protection Act 1993.

PM10: means 'particles with an equivalent aerodynamic of less than 10 micrometres, as passed by a size selective inlet'.

PM2.5: means 'particles with an equivalent aerodynamic of less than 2.5 micrometres, as passed by a size selective inlet'.

POLLUTION CONTROL EQUIPMENT: means 'control equipment' as defined in the Environment Protection (Air Quality) Policy: any device that controls, limits, measures, records or indicates air pollution.

WASTE: As defined under the Environment Protection Act 1993, Waste means -

(a) any discarded, rejected, abandoned, unwanted or surplus matter, whether or not intended for sale or for recycling, reprocessing, recovery or purification by a separate operation from that which produced the matter; or

(b) anything declared by regulation (after consultation under section 5A) or by an environment protection policy to be a waste, whether of value or not.

WASTEWATER: as defined in the Environment Protection (Water Quality) Policy 2015.

WATERS: is as defined in the Environment Protection (Water Quality) Policy 2015.

Acronyms

EPA: means Environment Protection Authority

AFRM: means Alternative Fuel and/or Raw Material.

EIP: means Environment Improvement Programme.

STP: means standard temperature and pressure (zero degrees Celsius and 101.3 kiloPascals absolute).

WTC: means Waste Transport Certificate.



Conditions of Licence

The Licensee is authorised to conduct the prescribed activities as described in this Licence at the Premises nominated, subject to the following conditions:

1 CONTROL OF EMISSIONS

1.1 DUST MANAGEMENT PLAN (U-755)

- 1.1.1 develop and submit to the satisfaction of the EPA a Dust Management Plan by the date listed below;
- 1.1.2 ensure that the Dust Management Plan includes, but is not limited to:
 - a specification of trigger values to prevent and minimise particulate emissions;
 - b specification of trigger values required by paragraph (a) should have regard to the following items:
 - i existing monitoring data;
 - ii data collected as part of conditions U-729, U-749;
 - iii meteorological conditions; and
 - iv visual observations.
 - c detailed action and response strategies that will be taken when the trigger values, identified under paragraph (a) are reached, to prevent and minimise particulate emissions;
 - d provision of quarterly reports on the implementation of the Dust Management Plan to the EPA that includes but is not limited to;
 - i the date, time and trigger value exceeded;
 - ii action and response strategies implemented;
 - iii summary of events notified under condition U-765 Ground Level Particulate Notification.
 - e provision of an annual report to the EPA which includes the following but is not limited to:
 - a review of all the trigger values identified in paragraph 1.1.2;
 - ii a review of the effectiveness of all action and response strategies identified in paragraph 1.1.2;
 - iii a trend analysis of data collected;
 - iv a review and analysis of community complaints recorded in condition 300-9 with the exceedance of trigger values identified in paragraph 1.1.2; and
 - v opportunities for improvement in dust management.
- 1.1.3 if the Dust Management Plan submitted is unacceptable to the EPA, resubmit within 28 days of being notified in writing of the requirement to do so, a revised plan:

1.1.4 implement the Dust Management Plan approved in writing by the EPA (or any revised plan approved in writing by the EPA).

Compliance Date: 28-Feb-2018

1.2 ENVIRONMENT IMPROVEMENT PROGRAMME (U-720)

The Licensee must:

- 1.2.1 implement the EPA approved Adelaide Brighton Cement Ltd document entitled "Environment Improvement Programme" (Version 1, Dated 1 January 2016);
- 1.2.2 develop and submit to the EPA by the date listed below, a revised Environment Improvement Programme (EIP) to the satisfaction of the EPA by the date listed below;
- 1.2.3 undertake public consultation in the course of developing the revised EIP;
- 1.2.4 ensure that the revised EIP includes, but is not limited to:
 - a a summary of the results of public consultation undertaken in developing the EIP;
 - b details of actions, timeframes and milestones to be undertaken by the Licensee to address noise abatement options identified in the Vipac Engineers and Scientists Report, May 2017 'Noise Abatement and Modelling Update';
 - c a framework for reporting to the EPA three quarterly reports and one annual report, which demonstrate progress and completion of the EIP actions;
 - d a framework of how the effectiveness of the actions detailed in the EIP will be assessed:
- 1.2.5 if the revised EIP submitted is unacceptable to the EPA, resubmit within 28 days of being notified in writing of the requirement to do so, a further revised EIP;
- 1.2.6 implement the revised EIP upon approval in writing by the EPA.

Compliance Date: 01-Dec-2017

1.3 GROUND LEVEL PARTICULATE NOTIFICATION (U-765)

- 1.3.1 provide notification to the EPA, within 48 hours, when the following particulate limits are exceeded at any monitoring locations outside the Premises:
 - a a PM10 concentration of 50 micrograms per cubic metre over a 24 hour averaging period; and
 - b a PM2.5 concentration of 25 micrograms per cubic metre over a 24 hour averaging period.

- 1.3.2 ensure any notification provided under 1.1.1 of this condition includes but is not limited to:
 - a the date:
 - b the cause;
 - the measured particulate concentration over the 24 hour averaging period; and
 - d remedial actions taken to reduce particulate emissions.

1.4 PARTICULATE EMISSIONS - KILN STACK 4A (U - 718)

The Licensee must:

- 1.4.1 take all reasonable and practicable measures to prevent particulate emissions from Kiln Stack 4A exceeding a limit of 100mg/m3, based on a 1 hour average;
- 1.4.2 where particulate emissions exceed the limit specified under 1.1.1, of this condition, take all reasonable and practicable immediate action to reduce particulate emissions to below that limit;
- 1.4.3 provide notification to the EPA as soon as reasonably practicable of any exceedance of the limit specified under 1.1.1 of this condition and include the reason(s) for the exceedance, and the corrective actions implemented to reduce particulate emissions to below that limit.

1.5 PARTICULATE EMISSIONS - PRECALCINER STACK 4B (U - 754)

The Licensee must:

- 1.5.1 take all reasonable and practicable measures to prevent particulate emissions from Precalciner Stack 4B exceeding a limit of 60mg/m3, based on a 1 hour average;
- 1.5.2 where particulate emissions exceed the limit specified under 1.1.1 of this condition, take all reasonable and practicable immediate action to reduce particulate emissions to below that limit;
- 1.5.3 provide notification to the EPA as soon as reasonably practicable of any exceedance of the limit specified under 1.1.1 of this condition and include the reason(s) for the exceedance, and the corrective actions implemented to reduce particulate emissions to below that limit.

1.6 PREMISES STORMWATER MANAGEMENT (S-160)

The Licensee must:

1.6.1 take all reasonable and practicable measures to prevent contamination of stormwater resulting from prescribed activities undertaken at the Premises; and 1.6.2 implement appropriate contingency measures to contain the contaminated stormwater at the Premises unless and until the contaminated stormwater is treated to remove the contamination, or is disposed of at an appropriately licensed facility.

1.7 SITE NOISE MINIMISATION (S-88)

The Licensee must:

- 1.7.1 take all reasonable and practicable measures to minimise noise generated the licensed activity:
- 1.7.2 develop a Noise Management Plan to the satisfaction of the EPA; and
- 1.7.3 implement the Noise Management Plan approved in writing by the EPA (or any revised plan approved in writing by the EPA).

1.8 WASTEWATER (S-18)

The Licensee must take all reasonable and practicable measures to prevent wastewater or contaminated stormwater from discharging onto land and/or into waters.

2 WASTE MANAGEMENT

2.1 LISTED WASTE AND/OR CONTROLLED WASTE PRODUCER (S-166)

The Licensee must:

- 2.1.1 prior to the interstate transport of any waste specified in the Listed Waste attachment and/or Controlled Waste attachment to this licence, obtain a Consignment Authorisation from the relevant authority in the state or territory of destination of that waste;
- 2.1.2 ensure a WTC is generated for any waste specified in the Listed Waste and/or Controlled Waste attachments to this licence before that waste is transported to a Destination Facility in South Australia or interstate;
- 2.1.3 provide a copy or copies of the WTC to the transporter of the waste and the EPA; and
- 2.1.4 retain a copy of all manually generated WTC's for not less than 12 months.

3 OPERATIONAL MANAGEMENT

3.1 ALTERNATIVE FUEL AND/OR RAW MATERIAL MANAGEMENT (32-15)

- 3.1.1 ensure that the only types of AFRM to be burned in the industrial fuel burning equipment on the Premises are those defined in Schedule X-1 (attached to this licence); and
- 3.1.2 comply with the requirements of paragraph 1 this condition, except during the events of trial burning of AFRM in the industrial fuel burning equipment on the Premises whereby the trial is undertaken in accordance with Schedule W-1 (attached to this licence).

3.2 ALTERNATIVE FUELS - OPERATIONAL REQUIREMENTS (U-725)

The Licensee must ensure that:

- 3.2.1 all alternative fuels listed in Schedule X-1 of this licence are:
 - a completely combusted in a certified Type B gas appliance;
 - b not admitted into the certified Type B gas appliance during startup, shut-down, or where the gas flame is not under stable operating conditions;
- 3.2.2 the following parameters are monitored and recorded whenever alternative fuels listed in Schedule X-1 of this licence are used:
 - a the alternative fuel type and usage rate;
 - b the temperature in degrees Celcius of the combustion gases exiting the Type B gas appliance;
 - c the composition of the combustion gases exiting the Type B gas appliance, including but not limited to the percentage of oxygen, carbon monoxide and methane;
 - d the temperature in degrees Celcius of the combustion gases entering the electrostatic precipitators;
- 3.2.3 records relating to this condition are kept for the term of the Licence, and are made available to an Authorised Officer upon request.

3.3 CLEAN UP OF SPILLS (S-218)

The Licensee must, as soon as practicable, cause any material spilt onto the wharf, dock, loading or work area to be removed and reused, or disposed of to an appropriately licensed facility.

NOTES

Materials is as described in Clause 7(1) of Schedule 1 of the Environment Protection Act 1993.

3.4 COMMUNITY ENGAGEMENT PLAN (U-722)

The Licensee must:

3.4.1 develop and implement a Community Engagement Plan in consultation with key stakeholders; and

3.4.2 provide public access to the Community Engagement Plan (and any subsequent amended version) by the compliance date listed below.

Compliance Date: 31-Jan-2018

3.5 COMPLAINTS (300 - 9)

The Licensee must:

- 3.5.1 maintain a register of complaints received regarding the Licensee's operations that sets out:
 - a the date and time that the complaint was reported;
 - b details of the complaint;
 - c the name and address of the complainant (if permitted by the complainant);
 - d the date and time of the events giving rise to the complaint;
 - e the likely cause of the events giving rise to the complaint;
 - f an estimate of the temperature, wind speed, wind direction and rainfall at the time of the events giving rise to the complaint; and
 - g any action taken by the Licensee in response to the complaint and to prevent a recurrence of the events giving rise to the complaint;
- 3.5.2 respond to the complainant within 72 hours;
- 3.5.3 make available a summary report of complaints received at the Adelaide Brighton Cement Community Liaison Group meetings; and
- 3.5.4 retain the register for the duration of this licence.

3.6 POLLUTION CONTROL EQUIPMENT REGISTER (S-2)

The Licensee must:

- 3.6.1 maintain all Pollution Control Equipment to ensure that pollution is minimised; and
- 3.6.2 keep a written record of all inspections of Pollution Control Equipment, which includes:
 - a the name of the recording officer;
 - b the date of each inspection of the equipment;
 - c details of the equipment that was inspected;
 - d an assessment of whether the equipment was working effectively; and
 - e the action taken (if required) to rectify any faults or failures.

3.7 TRUCK CLEANING (330 - 211)

- 3.7.1 only wash vehicles at the Premises within a waste water collection system;
- 3.7.2 direct all bulk tankers loaded on site to exit the site through a vehicle wash.

4 MONITORING AND REPORTING

4.1 GROUND LEVEL PARTICULATE MONITORING AND REPORTING PLAN (U-729)

The Licensee must:

- 4.1.1 develop and submit to the satisfaction of the EPA by the date listed below a Ground Level Particulate Monitoring and Reporting Plan;
- 4.1.2 ensure that the Ground Level Particulate Monitoring and Reporting Plan includes, but is not limited to:
 - a measurement and monitoring of ground level particulate concentrations (as TSP, PM10 and PM2.5) at various locations within the Premises and outside the Premises;
 - b a methodology for the provision of real-time public access to 24hour averages and 1-hour averages of PM10 and PM2.5 monitoring data from monitoring stations located outside the Premises; and
 - c a framework for reporting to the EPA, including submission dates of quarterly and annual reports.
- 4.1.3 if the Ground Level Particulate Monitoring and Reporting Plan submitted is unacceptable to the EPA, resubmit within 28 days of being notified in writing of the requirement to do so, a revised plan;
- 4.1.4 implement the Ground Level Particulate Monitoring and Reporting Plan approved in writing by the EPA (or any revised plan approved in writing by the EPA).

Compliance Date: 31-Jan-2018

4.2 OPTIONS ASSESSMENT (U-730)

- 4.2.1 ensure a suitably qualified expert:
 - a undertakes a detailed assessment of options to prevent or minimise particulate emissions from the following sources at the site:
 - i exposed/unsealed areas;
 - ii external material stockpiles;
 - iii vehicle movements;
 - iv material conveyor and transfer systems; and
 - v dust collector units associated with processing and storage facilities.

- 4.2.2 submit to the EPA for its approval, by the date listed below, an 'Options Assessment Report', ensuring the report contains:
 - a the details of the options assessed under part (a) of this licence condition;
 - b a feasibility assessment of each option;
 - c the expected environmental outcomes of the options identified;
 - d the methodology used and considerations made in selecting the preferred measure(s) or action(s); and
 - e recommendation(s) of proposed options to be taken to prevent or minimise particulate emissions.
- 4.2.3 if the Options Assessment Report submitted is unacceptable to the EPA, resubmit within 28 days of being notified in writing of the requirement to do so, a revised Report.

Compliance Date: 28-Feb-2018

4.3 STACK EMISSION TESTING (U - 748)

The Licensee must:

- 4.3.1 test emissions from all exhaust stacks, by the last day of April and October of each year for the following:
 - a substances included in Schedule Y-1 of this licence;
 - b temperature;
 - c moisture;
 - d pressure; and
 - e exhaust velocity
- 4.3.2 ensure that the emission testing programme is undertaken when the plant is under stable operating conditions;
- 4.3.3 carry out the emission testing programme in accordance with the methods specified in the EPA document entitled 'Emission Testing Methodology for Air Pollution Manual version 2', dated August 2012; and
- 4.3.4 submit a report to the EPA within 90 days after the conclusion of the emission testing programme, which includes but is not limited to:
 - a an assessment of whether the tested emissions comply with Schedule Y-1 of this licence;
 - b the type and mass feed rate of any utilised alternative fuels and/or raw materials listed under Schedule X-1 of this licence that were used during the testing that is required under paragraph 1.1.1; and
 - c how the requirements outlined in Section 2.6 of the EPA document entitled 'Emission Testing Methodology for Air Pollution Manual version 2', dated August 2012 were complied with.

4.4 STACK PARTICULATE MANAGEMENT PLAN (U-749)

- 4.4.1 develop and submit a Stack Particulate Management Plan to the satisfaction of the EPA by the date listed below;
- 4.4.2 ensure that the Stack Particulate Management Plan includes, but is not limited to:
 - a continuous monitoring of particulate emissions from Kiln Stack 4A and Precalciner Stack 4B in accordance with the EPA document entitled "Emission Testing Methodology for Air Pollution Manual Version 2" dated August 2012;
 - b how the continuous monitors will be calibrated in accordance with Appendix B of the EPA document entitled "Emission Testing Methodology for Air Pollution Manual Version 2" dated August 2012:
 - what actions will be taken when stack particulate emission trigger values listed in schedule Z-1 are exceeded;
- 4.4.3 ensure the Stack Particulate Management Plan includes a methodology and framework for quarterly reports to the EPA on the last day of January, April, July and October of each year, which includes but is not limited to:
 - a details of incidents where a particulate emission limit in condition U-718 or U-754 is exceeded, such details to include but not be limited to:
 - i the date, time and duration;
 - ii the cause;
 - the measured particulate concentration over the duration of the event;
 - iv immediate actions taken to reduce particulate emissions;
 - v corrective actions taken to prevent future events of the same kind; and
 - vi reporting of particulate concentrations as milligrams per cubic metre at STP, dry basis.
- ensure that the Stack Particulate Management Plan provides for an annual report to the EPA on the last day of October of each year, which includes but is not limited to:
 - a a trend analysis of events reported in 1.1.3;
 - b a trend comparison of any exceedence events over the past 12 months when compared to the preceeding 12 months; and
 - c identification of any opportunities for improvement in order to decrease the frequency, duration and value of any exceedence events.
- 4.4.5 if the Stack Particulate Management Plan submitted is unacceptable to the EPA, resubmit within 28 days of being notified in writing of the requirement to do so, a revised plan;
- 4.4.6 implement the Stack Particulate Management Plan approved in writing by the EPA (or any revised plan approved in writing by the EPA).

NOTES

The Licensee must ensure that any exceedence event that results in environmental harm as defined under Sections 79 and 80 of the Environment Protection Act 1993, is notified pursuant to Section 83 of the Environment Protection Act 1993.

Compliance Date: 28-Feb-2018

5 ADMINISTRATION

5.1 ANNUAL RETURN AND PAYMENT OF ANNUAL FEES (A-4)

For the purposes of section 48(2)(a) of the Act, the date in each year for the lodgement of the Annual Return is no later than 90 days before the anniversary of the grant or renewal of the Licence; and

5.1.1 For the purposes of section 48(2)(b) of the Act, the date in each year for the payment of Annual Authorisation Fee is the anniversary of the grant of the Licence.

5.2 APPROVAL OF OPERATING PROCESSES (A-6)

The Licensee must not undertake changes to operating processes conducted pursuant to the Licence at the Premises without written approval from the EPA, where such changes:

- 5.2.1 have the potential to increase emissions or alter the nature of pollutants or waste currently generated by, or from the licensed activity; or
- 5.2.2 have the potential to increase the risk of environmental harm; or
- 5.2.3 would relocate the point of discharge of pollution or waste at the Premises.

5.3 APPROVAL OF WORKS (A-5)

The Licensee must not construct or alter a building or structure, or install or alter any plant or equipment, for use of an activity undertaken pursuant to the Licence at the Premises without written approval from the EPA, where such changes:

- 5.3.1 have the potential to increase the emissions or alter the nature of pollutants or waste currently generated by, or from the licensed activity; or
- 5.3.2 have the potential to increase the risk of environmental harm; or
- 5.3.3 would relocate the point of discharge of pollution or waste at the Premises.

5.4 CHANGE OF LICENSEE DETAILS (A-3)

If the Licensee's name or postal address (or both) changes, the Licensee must inform the EPA within 28 days of the change occurring.

EPA Licence No: 1126

5.5 LICENCE RENEWAL (A-2)

For the purposes of section 43(3) of the Act, an application for Renewal of the Licence must be made no later than 90 days before the expiry date of the Licence.

5.6 OBLIGATIONS TO EMPLOYEES, AGENTS AND CONTRACTORS (A-1)

The Licensee must ensure that every employee, agent or contractor responsible for undertaking any activity regulated by the Licence, is informed as to the conditions of the Licence.

5.7 VARIATION OF CONDITIONS OF LICENCE (PURSUANT TO SECTION 45(3) OF THE ENVIRONMENT PROTECTION ACT, 1993) (U - 753)

The EPA may:

- 5.7.1 Impose conditions or vary conditions of this licence at any time by notice in writing to the Licensee in the following circumstances:
 - a in relation to noise emissions, particulate emissions from fugitive sources and/or point sources, including a condition requiring revision of the EIP, based on:
 - i the progress of the implementation of the EIP;
 - ii the reporting required under the EIP;
 - iii the ground level particulate monitoring data and information;
 - iv the stack monitoring data and information;
 - Stack Management Plan reports;
 - vi Dust Management Plan reports;
 - vii Noise Management Plan reports; and
 - viii outcomes of the Options Assessment Report.

Attachments

There are six documents attached to this licence.

Listed Waste Attachment

Listed Waste

 per part B of Schedule 1 to the Environment Protection Act 1993, requiring provision of Waste Transport Certificate (WTC) for all transport movements

Waste stream or wastes having as constituents:

Acids and acidic solutions

Adhesives (excluding solid inert polymeric materials)

Alkali metals and alkaline earth metals

Alkalis and alkaline solutions

Antimony and antimony compounds and solutions

Arsenic and arsenic compounds and solutions

Asbestos

Barium compounds and solutions

Beryllium and beryllium compounds

Boron and boron compounds

Cadmium and cadmium compounds and solutions

Calcium carbide

Carbon disulphide

Carcinogens teratogens and mutagens

Chlorates

Chromium compounds and solutions

Copper compounds and solutions

Cyanides or cyanide solutions and cyanide complexes

Cytotoxic wastes

Dangerous substances within the meaning of the Dangerous Substances Act 1979

Distillation residues

Fluoride compounds

Halogens

Heterocyclic organic compounds containing oxygen, nitrogen or sulphur

Hydrocarbons and their oxygen, nitrogen and sulphur compounds (including oils)

Isocyanate compounds (excluding solid inert polymeric materials)

Laboratory chemicals

Lead compounds and solutions

Lime sludges or slurries

Manganese compounds

Medical waste consisting of—

- (a) a needle, syringe with needle, surgical instrument or other article that is discarded in the course of medical*, dental or veterinary practice or research and has a sharp edge or point capable of inflicting a penetrating injury on a person who comes into contact with it; or
- (b) human tissue, bone, organ, body part or foetus; or
- (c) a vessel, bag or tube containing a liquid body substance; or
- (d) an animal carcass discarded in the course of veterinary or medical* practice or research; or
- (e) a specimen or culture discarded in the course of medical*, dental or veterinary practice or research and any material that has come into contact with such a specimen or culture; or
- (f) any other article or matter that is discarded in the course of medical*, dental or veterinary practice or research and that poses a significant risk to the health of a person who comes into contact with it. medical practice includes the practice of pathology and the operation of an immunisation clinic.

Listed Waste Licence Attachment

per part B of Schedule 1 to the Environment Protection Act 1993, requiring provision of Waste Transport Certificate (WTC) for all transport movements

Waste stream or wastes having as constituents (continued):

Mercaptans

Mercury compounds and equipment containing mercury

Nickel compounds and solutions

Nitrates

Organic halogen compounds (excluding solid inert polymeric materials)

Organic phosphates

Organic solvents

Organometallic residues

Oxidising agents

Paint sludges and residues

Perchlorates

Peroxides

Pesticides (including herbicides and fungicides)

Pharmaceutical wastes and residues

Phenolic compounds (excluding solid inert polymeric materials)

Phosphorus and its compounds

Polychlorinated biphenyls

Poisons within the meaning of the Drugs Act 1908

Reactive chemicals

Reducing agents

Selenium and selenium compounds and solutions

Silver compounds and solutions

Solvent recovery residues

Sulphides and sulphide solutions

Surfactants

Thallium and thallium compounds and solutions

Vanadium compounds

Zinc compounds and solutions

Controlled Waste Attachment

Controlled Waste

 per the National Environment Protection (Movement of Controlled Waste between States and Territories) Measure 1998, requiring provision of Waste Transport Certificate (WTC) from State or Territory where waste originates

Waste stream or wastes having as constituents:

Acidic solutions or acids in solid form

Animal effluent and residues (abattoir effluent, poultry and fish processing waste)

Antimony; antimony compounds

Arsenic; arsenic compounds

Asbestos

Barium compounds (excluding barium sulphate)

Basic solutions or bases in solid form

Beryllium; beryllium compounds

Boron compounds

Cadmium; cadmium compounds

Ceramic-based fibres with physico-chemical characteristics similar to those of asbestos

Chlorates

Chromium compounds (hexavalent and trivalent)

Clinical and related wastes

Cobalt compounds

Containers which are contaminated with residues of substances referred to in this list

Copper compounds

Cyanides (inorganic)

Cyanides (organic)

Cyanides (organic) / nitriles

Encapsulated, chemically-fixed, solidified or polymerised wastes referred to in this list

Ethers

Filter cake contaminated with residues of substances referred to in this list

Fire debris and fire washwaters

Fly ash, excluding fly ash generated from Australian coal fired power stations

Grease trap waste

Halogenated organic solvents

Highly odorous organic chemicals (including mercaptans and acrylates)

Inorganic fluorine compounds excluding calcium fluoride

Inorganic sulfides

Isocyanate compounds

Lead; lead compounds

Mercury; mercury compounds

Metal carbonyls

Nickel compounds

Non-toxic salts

Controlled Waste Licence Attachment (continued)

 per the National Environment Protection (Movement of Controlled Waste between States and Territories) Measure 1998, requiring provision of Waste Transport Certificate (WTC) from State or Territory where waste originates

Waste stream or wastes having as constituents:

Organic phosphorus compounds

Organic solvents excluding halogenated solvents

Organohalogen compounds - other than substances referred to in this list

Oxidising agents

Perchlorates

Phenols, phenol compounds including chlorophenols

Phosphorus compounds excluding mineral phosphates

Polychlorinated dibenzo-furan (any congener)

Polychlorinated dibenzo-p-dioxin (any congener)

Reactive chemicals

Reducing agents

Residues from industrial waste treatment/disposal operations.

Selenium; selenium compounds

Soils contaminated with a controlled waste

Surface active agents (surfactants), containing principally organic constituents and which may contain metals and inorganic materials

Tannery wastes (including leather dust, ash, sludges and flours)

Tellurium, tellurium compounds

Thallium; thallium compounds

Triethylamine catalysts for setting foundry sands

Tyres

Vanadium compounds

Waste chemical substances arising from research and development or teaching activities including those which are not identified and/or are new and whose effects on human health and/or the environment are not known

Waste containing peroxides other than hydrogen peroxide

Waste from heat treatment and tempering operations containing cyanides

Waste from the manufacture, formulation and use of wood-preserving chemicals

Waste from the production, formulation and use of biocides and phytopharmaceuticals

Waste from the production, formulation and use of inks, dyes, pigments, paints, lacquers and varnish

Waste from the production, formulation and use of organic solvents

Waste from the production, formulation and use of photographic chemicals and processing materials

Waste from the production, formulation and use of resins, latex, plasticisers, glues and adhesives

Waste from the production and preparation of pharmaceutical products

Waste mineral oils unfit for their original intended use

Waste oil/water, hydrocarbons/water mixtures or emulsions

Waste pharmaceuticals, drugs and medicines

Waste resulting from surface treatment of metals and plastics

Waste tarry residues arising from refining, distillation, and any pyrolytic treatment

Waste, substances and articles containing or contaminated with polychlorinated biphenyls (PCBs), polychlorinated naphthalenes (PCNs), polychlorinated terphenyls (PCTs) and/or polybrominated biphenyls (PBBs)

Waste of an explosive nature not subject to other legislation

Wool scouring waste

Zinc compounds

Schedule W-1

Authorisation Attachment - page 1 of 3

Schedule W-1 AFRM Trial Management

Adelaide Brighton Cement Ltd - EPA Environmental Authorisation 1126

W-1.1 Pre-Trial Report

The Licensee must:

- 1. prepare a pre-trial report for the use of AFRM, which must contain, but not be limited to, the following:
 - **1.1** demonstration of beneficial purposes;
 - **1.2** demonstrated support for the waste hierarchy;
 - **1.3** the purpose of the trial;
 - 1.4 an assessment of the risks associated with the use of the AFRM and risk mitigating measures including, but not limited to:
 - **1.4.1** the predicted mass balance of the AFRM including predicted emissions to air and baseline emissions for comparison;
 - 1.4.2 the results of previous stack emissions testing using the AFRM, if available; and
 - 1.4.3 any risks associated with on-site storage, handling and feed into the process;
 - 1.5 tests proposed to be undertaken during the trial (for example stack emissions testing, including the analytes to be tested). Note: It is recommended that, as a minimum, the stack emissions testing is consistent with licence condition 32-34. If the Licensee proposes to exclude any of the analytes and properties in licence condition 32-34 from testing, the Licensee must highlight this and provide justification in the pre-trial report for EPA approval;
 - 1.6 records to be kept and duration that records will be kept during and after the trial; and
 - **1.7** the proposed dates for trial commencement and completion;
- 2. submit the pre-trial report to the Authority, at least 30 days before the commencement of a trial, for approval.
- 3. If the pre-trial report submitted in accordance with paragraph 2 is not acceptable to the Authority, resubmit a revised version of the post trial report (incorporating any additions or alterations that are required by the Authority) within the time period advised by the Authority in writing.

W-1.2 Trial Record

The Licensee must:

- 1. keep a record at the Premises of the details listed in the pre-trial report and any records required by EPA condition of approval; and
- 2. ensure that the records, described in paragraph 1 hereof, are made available to an Authorised Officer upon request at any time during or after the trial taking into account the duration that records will be retained as specified in the pre-trial report.

Version 20101102



Schedule W-1 AFRM Trial Management (continued)

Adelaide Brighton Cement Ltd - EPA Environmental Authorisation 1126

W-1.3 Post-Trial Report - Summary of AFRM Trial

The Licensee must:

- 1. prepare a post-trial report 'Summary of AFRM Trial' including, but not limited to, the following information:
 - **1.1** the total quantity of AFRM used during the trial;
 - **1.2** the dates and times when the trial commenced and concluded:
 - **1.3** the results of stack emissions testing for the analytes and properties specified in any relevant pre-trial reports and baseline emissions for comparison, where applicable; and
 - **1.4** an assessment of the suitability of the AFRM for ongoing use.
- 2. submit the 'Summary of AFRM trial' post -trial report to the Authority within 90 days of the completion of each trial, within 30 days after receipt of stack emissions or modelling results, whichever is greater; and
- 3. if the post-trial report submitted in accordance with paragraph 2 is not acceptable to the Authority, resubmit a revised version of the post trial report (incorporating any additions or alterations that are required by the Authority) within the time period advised by the Authority in writing.

W-1.4 Post-Trial Report - Summary of AFRM Trial

If the AFRM has been found to be suitable for ongoing use, the Licensee must:

- 1. prepare a post-trial report 'Request for Ongoing Use of AFRM' for EPA approval. The Report must contain, but is not limited to, the following information:
 - 1.1 demonstration of beneficial purposes;
 - **1.2** demonstrated support for the waste hierarchy;
 - **1.3** an assessment of the risks associated with the use of the AFRM and risk mitigating measures including, but not limited to,
 - **1.3.1** the results of stack emissions testing for the analytes and properties specified in any relevant pre-trial reports and baseline emissions for comparison.
 - 1.3.2 air dispersion modelling and ground level concentrations for each substance analysed, as specified in any relevant pre-trial reports, as well as ground level concentrations for baseline emissions for comparison;
 - 1.3.3 any risks associated with on-site storage and handling;
 - 1.3.4 any relevant complaints or enquiries received during the trial
- 2. submit the 'Request for ongoing use of AFRM' post -trial report to the Authority at least 60 days before requiring approval; and
- 3. if the post-trial report submitted in accordance with paragraph 2 is not acceptable to the Authority, resubmit a revised version of the post trial report (incorporating any additions or alterations that are required by the Authority) within the time period advised by the Authority in writing.

(Note: Guidance on the use of refuse derived fuel is provided in the EPA 'Standard for the production and use of refuse derived fuel' dated June 2009]

Schedule X-1

Authorisation Attachment - page 1 of 1

Schedule X-1

Adelaide Brighton Cement Ltd – EPA Environmental Authorisation 1126

Schedule X-1

AFRM	Approved Feed Rate	
Carbon Powder	Maximum – 2.5 tonnes per hour	
(processed anodes)		
Demolition Wood Waste	15 tonnes per hour	
	(Note: max. 10% plastic contamination by weight)	
Black Sand	Maximum – 6250 kilograms per hour	
(processed Blast Furnace Slag)		
Blast Furnace Slag	Maximum – 15 tonnes per hour	
(unprocessed from One Steel)		
Blended Mill Scale	Maximum – 4 tonnes per hour	
(iron oxide by-product from the		
recycling of scrap steel)		
Alox	Maximum 1 tonne per hour	
Used Foundry Sand	Maximum – 4 tonnes per hour	

Version 20170913



Schedule Y-1

Authorisation Attachment - page 1 of 2

Schedule Y-1

Adelaide Brighton Cement Ltd – EPA Environmental Authorisation 1126

SUBSTANCE	AVERAGING TIME	MAXIMUM DESIGN CRITERIA mg/m ³ 1	MAXIMUM DESIGN CRITERIA ppm ²
Carbon monoxide	1-hour		
Nitrogen dioxide	1-hour	per the limits specified in Schedule 2 of the Environment Protection (Air Quality) Policy 2016	per the limits specified in Schedule 2 of the Environment Protection (Air Quality) Policy 2016
Sulphur dioxide	1 hour	T Glicy 2010	
Antimony and compounds	3-minute		
Barium (soluble compound)	3-minute		
Chlorine	3-minute		
Chromium (III) compounds	3-minute	the Environment Protection (Air Quality) the Environme	per the limits specified in Schedule 2 of the Environment Protection (Air Quality
Copper fume	3-minute		Policy 2016
Fluoride	24-hours 7-days 90-days		
Hydrogen chloride	3-minute		
Iron oxide fume	3-minute		
Magnesium oxide fume	3-minute		
Manganese and compounds	3-minute		
Mercury - organic - inorganic	3-minute 3-minute		
Zinc oxide fume	3-minute		

Version 20170913



Schedule Y-1 (continued)

Adelaide Brighton Cement Ltd – EPA Environmental Authorisation 1126

SUBSTANCE	AVERAGING TIME	MAXIMUM DESIGN CRITERIA mg/m ^{3 1}	MAXIMUM DESIGN CRITERIA ppm²
Arsenic and compounds	3-minute		
Benzene	3-minute		
Beryllium and beryllium compounds	3-minute	per the limits specified in Schedule 2 of	per the limits specified in Schedule 2 of
Cadmium and cadmium compounds	3-minute		the Environment Protection (Air Quality) Policy 2016
Chromium VI compounds	3-minute		
Nickel and nickel compounds	3-minute		
PAH (as BaP)	3-minute		
Particles (as PM10)	24 hour		
Particles (as PM2.5)	24 hour		

SUBSTANCE	MAXIMUM STACK CONCENTRATION	UNITS
Chlorinated dioxins and furans	0.1 ITEQ ³	nanograms per cubic metre, STP, dry basis

¹ STP, dry basis

² parts per million (volume/volume)

³ ITEQ: International Toxic Equivalent

Schedule Z-1

Authorisation Attachment - page 1 of 1

Schedule Z-1

Adelaide Brighton Cement Ltd – EPA Environmental Authorisation 1126

Schedule Z-1

STACK PARTICULATE EMISSION TRIGGER VALUES			
Averaging Period	Kiln Stack 4A	Precalciner Stack 4B	
5 minute	140mg/m3	120mg/m3	
10 minute	125mg/m3	90mg/m3	
1 hour	100mg/m3	60mg/m3	

Version 20170913

