



Environment Protection Licence

Licence - 1698

Licence Details	
Number:	1698
Anniversary Date:	01-May

Licensee
BORAL CEMENT LIMITED
PO BOX 6041
NORTH RYDE NSW 2113

Premises
BERRIMA CEMENT WORKS
TAYLOR AVENUE
NEW BERRIMA NSW 2577

Scheduled Activity
Cement or lime works
Energy recovery
Extractive activities
Resource recovery
Waste storage

Fee Based Activity	Scale
Cement or lime production	> 500000 T annual production capacity
Energy recovery from general waste	Any capacity
Extractive activities	> 100000-500000 T annually extracted or processed
Recovery of general waste	Any general waste recovered
Waste storage - other types of waste	Any other types of waste stored

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Information about this licence

Dictionary

A definition of terms used in the licence can be found in the dictionary at the end of this licence.

Responsibilities of licensee

Separate to the requirements of this licence, general obligations of licensees are set out in the Protection of the Environment Operations Act 1997 ("the Act") and the Regulations made under the Act. These include obligations to:

- ensure persons associated with you comply with this licence, as set out in section 64 of the Act;
- control the pollution of waters and the pollution of air (see for example sections 120 - 132 of the Act);
- report incidents causing or threatening material environmental harm to the environment, as set out in Part 5.7 of the Act.

Variation of licence conditions

The licence holder can apply to vary the conditions of this licence. An application form for this purpose is available from the EPA.

The EPA may also vary the conditions of the licence at any time by written notice without an application being made.

Where a licence has been granted in relation to development which was assessed under the Environmental Planning and Assessment Act 1979 in accordance with the procedures applying to integrated development, the EPA may not impose conditions which are inconsistent with the development consent conditions until the licence is first reviewed under Part 3.6 of the Act.

Duration of licence

This licence will remain in force until the licence is surrendered by the licence holder or until it is suspended or revoked by the EPA or the Minister. A licence may only be surrendered with the written approval of the EPA.

Licence review

The Act requires that the EPA review your licence at least every 5 years after the issue of the licence, as set out in Part 3.6 and Schedule 5 of the Act. You will receive advance notice of the licence review.

Fees and annual return to be sent to the EPA

For each licence fee period you must pay:

- an administrative fee; and
- a load-based fee (if applicable).



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The EPA publication “A Guide to Licensing” contains information about how to calculate your licence fees. The licence requires that an Annual Return, comprising a Statement of Compliance and a summary of any monitoring required by the licence (including the recording of complaints), be submitted to the EPA. The Annual Return must be submitted within 60 days after the end of each reporting period. See condition R1 regarding the Annual Return reporting requirements.

Usually the licence fee period is the same as the reporting period.

Transfer of licence

The licence holder can apply to transfer the licence to another person. An application form for this purpose is available from the EPA.

Public register and access to monitoring data

Part 9.5 of the Act requires the EPA to keep a public register of details and decisions of the EPA in relation to, for example:

- licence applications;
- licence conditions and variations;
- statements of compliance;
- load based licensing information; and
- load reduction agreements.

Under s320 of the Act application can be made to the EPA for access to monitoring data which has been submitted to the EPA by licensees.

This licence is issued to:

BORAL CEMENT LIMITED
PO BOX 6041
NORTH RYDE NSW 2113

subject to the conditions which follow.



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1 Administrative Conditions

A1 What the licence authorises and regulates

A1.1 This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.

Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.

Scheduled Activity	Fee Based Activity	Scale
Cement or lime works	Cement or lime production	> 500000 T annual production capacity
Energy recovery	Energy recovery from general waste	Any capacity
Extractive activities	Extractive activities	> 100000 - 500000 T annually extracted or processed
Resource recovery	Recovery of general waste	Any general waste recovered
Waste storage	Waste storage - other types of waste	Any other types of waste stored

A2 Premises or plant to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
BERRIMA CEMENT WORKS
TAYLOR AVENUE
NEW BERRIMA
NSW 2577
LOT 1013 DP 15995, LOT 1041 DP 15995, LOT 22 DP 582276, LOT 1 DP 582277, LOT 2 DP 774598, LOT 1 DP 1017008, LOT 2 DP 1136734

A3 Information supplied to the EPA

A3.1 Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.

In this condition the reference to "the licence application" includes a reference to:

- a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and
- b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.

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2 Discharges to Air and Water and Applications to Land

P1 Location of monitoring/discharge points and areas

P1.1 The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.

<i>Air</i>			
EPA identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
2	Discharge to air Air emissions monitoring	Discharge to air Air emissions monitoring	No.6 Kiln Stack on map entitled Site Environmental Layout - Drawing 40405 Rev C, dated 14 March 2006, provided to the EPA on 15 March 2006.
4	Discharge to air Air emissions monitoring	Discharge to air Air emissions monitoring	No.6 Cement Mill Stack on map entitled Site Environmental Layout - Drawing 40405 Rev C, dated 14 March 2006, provided to the EPA on 15 March 2006.
5	Discharge to air Air emissions monitoring	Discharge to air Air emissions monitoring	No.6 Kiln Cooler Stack on map entitled Site Environmental Layout - Drawing 40405 Rev C, dated 14 March 2006, provided to the EPA on 15 March 2006.
7	Discharge to air Air emissions monitoring	Discharge to air Air emissions monitoring	No.5 Cement Mill Stack on map entitled Site Environmental Layout - Drawing 40405 Rev C, dated March 2006, provided to the EPA on 15 March 2006.
10	Discharge to air Air emissions monitoring	Discharge to air Air emissions monitoring	No.7 Cement Mill Stack on map entitled Site Environmental Layout, Drawing 40405 Rev C, dated 14 March 2006, provided to the EPA on 15 March 2006.
11	Dust monitoring		Dust deposition gauge labelled as 1 in aerial photograph of Boral Cement Berrima premises attached to Boral letter dated 28 September 2012 and held on EPA file LIC06/331-27.
12	Dust Monitoring		Dust deposition gauge labelled as 2 in aerial photograph of Boral Cement Berrima premises attached to Boral letter dated 28 September 2012 and held on EPA file LIC06/331-27.
13	Dust Monitoring		Dust deposition gauge labelled as 3 in aerial photograph of Boral Cement Berrima premises attached to Boral letter dated 28 September 2012 and held on EPA file LIC06/331-27.
14	Dust Monitoring		Dust deposition gauge labelled as 5 in aerial photograph of Boral Cement Berrima premises attached to Boral letter dated 28 September 2012 and held on EPA file LIC06/331-27.

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15	Dust Monitoring	Dust deposition gauge labelled as 7 in aerial photograph of Boral Cement Berrima premises attached to Boral letter dated 28 September 2012 and held on EPA file LIC06/331-27.
16	Dust Monitoring	Dust deposition gauge labelled as 8 in aerial photograph of Boral Cement Berrima premises attached to Boral letter dated 28 September 2012 and held on EPA file LIC06/331-27.
17	Dust Monitoring	Dust deposition gauge labelled as 9 in aerial photograph of Boral Cement Berrima premises attached to Boral letter dated 28 September 2012 and held on EPA file LIC06/331-27.
18	Ambient air quality monitoring - high volume air sampler or equivalent	High volume air sampler or equivalent located on the south eastern side of the works and labelled HVAS in aerial photograph of Boral Cement Berrima premises attached to Boral letter dated 28 September 2012 and held on EPA file LIC06/331-27.
19	Parameter Monitoring	In the Calciner in the vicinity of the point where the Non-Standard fuel enters and is fired.

P1.2 The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.

P1.3 The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.

Water and land

EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
9	Discharge to waters Effluent quality monitoring.	Discharge to waters Effluent quality monitoring.	Lake Quality Overflow Sampling on map entitled Site Environmental Layout - Drawing 40405 Rev C, dated 14 March 2006, provided to the EPA on 15 March 2006.

P1.4 The following points referred to in the table below are identified in this licence for the purposes of weather and/or noise monitoring and/or setting limits for the emission of noise from the premises.

Noise/Weather

EPA identification no.	Type of monitoring point	Location description
20	Noise monitoring	Noise Compliance Point known as 'Store Yard Close'



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3 Limit Conditions

L1 Pollution of waters

L1.1 Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.

L2 Load limits

L2.1 The actual load of an assessable pollutant discharged from the premises during the reporting period must not exceed the load limit specified for the assessable pollutant in the table below.

Note: An assessable pollutant is a pollutant which affects the licence fee payable for the licence.

L2.2 The actual load of an assessable pollutant must be calculated in accordance with the relevant load calculation protocol.

Assessable Pollutant	Load limit (kg)
Arsenic (Air)	
Benzene (Air)	
Benzo(a)pyrene (equivalent) (Air)	
Coarse Particulates (Air)	60000.00
Fine Particulates (Air)	240000.00
Lead (Air)	
Mercury (Air)	
Nitrogen Oxides (Air)	3500000.00
Sulfur Oxides (Air)	1600000.00

L3 Concentration limits

L3.1 For each monitoring/discharge point or utilisation area specified in the table/s below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.

L3.2 Air Concentration Limits



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POINT 2

Pollutant	Units of measure	100 percentile concentration limit	Reference conditions	Oxygen correction	Averaging period
Mercury	milligrams per cubic metre	0.05	Dry, 273K, 101.3kPa	10%	1 hour*
Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	0.5	Dry, 273K, 101.3kPa	10%	1 hour*
Solid Particles	milligrams per cubic metre	50	Dry, 273K, 101.3kPa	10%	24 hour
Nitrogen Oxides	milligrams per cubic metre	1000 & 1250	Dry, 273K, 101.3kPa	10%	24 hour & 1 hour respectively
Cadmium+Thallium	milligrams per cubic metre	0.05	Dry, 273K, 101.3kPa	10%	1 hour*
Chlorine	milligrams per cubic metre	50	Dry, 273K, 101.3kPa	10%	1 hour block
Dioxins & Furans	nanograms per cubic metre	0.1	Dry, 273K, 101.3kPa	10%	6-8 hours
Hydrogen chloride	milligrams per cubic metre	10	Dry, 273K, 101.3kPa	10%	1 hour*
Hydrogen fluoride	milligrams per cubic metre	1	Dry, 273K, 101.3kPa	10%	1 hour*
Sulfur dioxide	milligrams per cubic metre	50	Dry, 273K, 101.3kPa	10%	1 hour block
Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	50	Dry, 273K, 101.3kPa	10%	1 hour*
Volatile organic compounds	milligrams per cubic metre	40	Dry, 273K, 101.3kPa	10%	1 hour rolling

POINT 4

Pollutant	Units of measure	100 percentile concentration limit	Reference conditions	Oxygen correction	Averaging period
Solid Particles	milligrams per cubic metre	100	Dry, 273K, 101.3kPa	-	as per test method

POINT 5

Pollutant	Units of measure	100 percentile concentration limit	Reference conditions	Oxygen correction	Averaging period
Solid Particles	milligrams per cubic metre	100	Dry, 273K, 101.3kPa	-	as per test method

POINT 7

Pollutant	Units of measure	100 percentile concentration limit	Reference conditions	Oxygen correction	Averaging period
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Solid Particles	milligrams per cubic metre	100	Dry, 273K, 101.3kPa	-	as per test method
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POINT 10

Pollutant	Units of measure	100 percentile concentration limit	Reference conditions	Oxygen correction	Averaging period
Total Solid Particles	milligrams per cubic metre	20	Dry, 273K, 101.3kPa	-	as per test method

- Note:
- For the purpose of this condition, Type 1 and Type 2 substances are defined as an aggregate of Sb, As, Be, Cd, Cr, Co, Pb, Mn, Hg, Ni, Se, Sn and V.
 - Volatile organic compounds may be replaced by Total organic carbon (TOC) or other equivalents as agreed by the EPA.
 - # for continuous monitoring, averages calculated as per method agreed to by the EPA
 - * or the minimum sampling period specified in the relevant test method, whichever is the greater

Note: 24 hour average calculated from hourly averages of CEMS data as agreed to by the EPA for continuous monitoring; as per test method for campaign monitoring.

Note: Refer to Special Condition E1 - *Off White Clinker Production* for the applicable NOx Limit at Licenced Discharge Point 2, while manufacturing Off-White Clinker in No. 6 Kiln. This includes the transition from the manufacture of Grey Clinker to Off-White Clinker and vice versa. 'Transition' in this note refers to the time period of 24 hours prior to and post off-white clinker production.

L3.3 The limits specified in the table above apply to the burning of all fuels, that is: coal, coke fines, natural gas, fuel oil, diesel and Non-Standard Fuels as defined in Table O6.3 in kiln 6.

Calciner Temperature

L3.4 For monitoring point 19 specified in the table below, the temperature must be equal to or greater than the limit specified in the table when burning Non-Standard Fuels.

Point	Parameter	Units of Measure	Limit	Averaging Period
19	Temperature	Degrees Celsius	850	Instantaneous

L4 Waste

- L4.1 The licensee must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by a condition of this licence.
- L4.2 Except as provided by any other condition of the licence, the licensee must assess, classify and dispose of all wastes generated as result of the use of Non-Standard fuels in accordance with the NSW EPA's *Waste Classification Guidelines*.



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L5 Noise limits

- L5.1 Noise generated at the premises must not exceed the noise limits at the times and locations in the table below. The locations referred to in the table below are indicated by Figure 4.1A, within PRP-7 Response – Identifying Environmental Noise Objectives for Berrima Cement Plant, dated 27 March, 2018 (Ref RRRep:004) by Recognition Research.
- | Location | Day, Evening & Night LA90(15 minute) in dB(A) |
|--|---|
| The Noise Compliance Point (Point 20) - Store Yard Close | 58 |
- L5.2 For the purposes of Conditions 5.1:
- a) Day means the period from 7am to 6pm Monday to Saturday and the period from 8am to 6pm Sunday and public holidays.
 - b) Evening means the period from 6pm to 10pm.
 - c) Night means the period from 10pm to 7am Monday to Saturday and the period from 10pm to 8am Sunday and public holidays.
- L5.3 Standard Meteorological Conditions
- a) The noise emission limits identified in condition L5.1 apply under the following meteorological conditions for the Day, Evening and Night assessment period:
 - Stability Categories A, B, C and D with wind speeds up to and including 0.5m/s at 10m above ground level.
 - b) For those meteorological conditions not referred to in condition L6.3(a), the noise limits that apply are the noise limits in condition L6.1 plus 5dB.
- L5.4 For the purposes of condition L5.3:
- a) The meteorological conditions are to be determined from meteorological data obtained from the nearest, representative Bureau of Meteorology weather station
 - b) Stability category shall be determined using the following method from Fact Sheet D of the *Noise Policy for Industry* (NSW EPA, 2017):
 - i. Use of sigma-theta data (section D1.4).
- L5.5 For the purpose of determining the noise generated from the premises, the modifying factor corrections in Table C1 in Fact Sheet C of the Noise Policy for Industry (NSW EPA, 2017) may be applied, if appropriate, to the noise measurements by the noise monitoring equipment.
- L5.6 Noise measurements must not be undertaken where rain or wind speed at microphone level will affect the acquisition of valid measurements.
- Note: Noise Policy for Industry - the document entitled “*Noise Policy for Industry*” published by the NSW Environment Protection Authority in October 2017.
- Note: Noise is ‘sound pressure levels’ for the purposes of conditions L5.1 to L5.6.
- Note: LAeq (15 minute) - the value of the A-weighted sound pressure level of a continuous steady sound that, over a 15 minute time interval, has the same mean square sound pressure level as a sound under consideration with a level that varies with time (AS1055-2018).

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4 Operating Conditions

O1 Activities must be carried out in a competent manner

O1.1 Licensed activities must be carried out in a competent manner.

This includes:

- a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and
- b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

O2 Maintenance of plant and equipment

O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity:

- a) must be maintained in a proper and efficient condition; and
- b) must be operated in a proper and efficient manner.

O3 Dust

O3.1 The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.

O4 Processes and management

O4.1 Exemptions relating to start-up and shutdown periods

The standards of concentration prescribed by this licence do not apply to or in relation to any plant during the following periods:

(a) a start-up period—that is, while the No. 6 Kiln is being brought up to normal operation following a period of inactivity,

(b) a shutdown period—that is, while the No. 6 Kiln is being taken out of service from normal operation to inactivity.

Note. While the standard concentrations do not apply, the licensee will be subject to the requirements of section 128 (2) of the *Protection of the Environment Operations Act 1997* in relation to the prevention and minimisation of air pollution.

O5 Waste management

O5.1 TYRES (AKF5)



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- O5.2 The total quantity of AKF5 stockpiled at the premises must not exceed 1,000 tonnes at any time.
- O5.3 The licensee must store AKF5 at the premises in accordance with the Fire & Rescue NSW (Fire Safety Branch) Guideline for Bulk Storage of Rubber Tyres.
- O5.4 Any AKF5 stored outside or in storage bunkers must be roofed to exclude rainwater.

O6 Other operating conditions

O6.1 REINSTATEMENT OF NON-STANDARD FUEL USE

The licensee must give prior written advice to the EPA on the date of commencement of the use of Non-standard Fuels AKF1, AKF5 and Hi Cal 50 in Kiln 6.

O6.2 APPROVED FUELS

- O6.3 Except as permitted by any other condition of this licence, the following fuels only are permitted to be fed to Kiln 6 string at the firing rates or proportions as specified in the table below.

Fuel	Category	Tonnes per annum	Tonnes per hour	Percent of total fuel (by mass)
Natural gas, Fuel oil, Diesel	Standard Fuel	-	No Limit	-
Coal	Standard Fuel	No limit	No limit	equal to or greater than 50.0
Coke Fines	Standard Fuel	No limit	equal to or less than 10.0	equal to or less than 30.0
Hi Cal 50	Non-Standard Fuel	10000	equal to or less than 1.0	equal to or less than 4.0 in the coal blend
AKF1	Non-Standard Fuel	20000	equal to or less than 2.8	equal to or less than 10.0
AKF5	Non-Standard Fuel	30000	equal to or less than 4.5	equal to or less than 21.0
Wood Waste	Non-Standard Fuel	100000		Equal to or less than 50
RDF	Non-Standard Fuel	200000		Equal to or less than 50

- O6.4 The combined annual usage of Wood Waste and RDF must not exceed 250,000 Tonnes for the Reporting Period and must not be greater than 50% of total fuel mass.
- O6.5 The receipt and use of wood waste and RDF must be in compliance with the Quality Assurance and Control Procedure for Receipt and Use of Solid Waste Derived Fuels prepared and updated by the licensee from time to time, as approved by the EPA.
- O6.6 Only standard fuels and Non-Standard Fuel HiCal50 are permitted to be used in kiln 6 during start-up and shut-down.

O6.7 PROCESS PARAMETERS



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The licensee shall not burn Non-Standard Fuels in kiln 6 unless:

- the feed rates for Non-Standard Fuels are maintained at a steady controlled rate to provide combustion in a proper and efficient manner; and
- a temperature of above 850°C is maintained in the zone where Non-Standard Fuels are fired at the main-firing end of the kiln; and
- a temperature of above 800°C is maintained in the zone where Non-Standard Fuels are fired at or in the vicinity of the pre-calciner/de-Nox system of the kiln; and
- a temperature of above 300°C is maintained at the outlet of the pre-heater strings of the kiln; and
- a temperature of below 200°C is maintained at the inlet to the electrostatic precipitator and fabric filter of the kiln

O6.8 The temperature requirements of Condition O6.7 – Process Parameters - do not apply to the Non-Standard Fuel Hi Cal 50, when Hi Cal 50 is blended with coal to create a homogenous blend. The concentration of Hi Cal 50 in the coal blend must not exceed 4%.

O6.9 Notwithstanding Condition O6.8 the feed rate of the Non-Standard Fuel Hi Cal 50, must not exceed 400 kilograms per hour when the temperature at the outlet of the preheater strings is below 300°C.

O6.10 REPORTING OF AIR EMISSIONS LIMITS EXCEEDANCES

The licensee must report all air emissions limit exceedances for Monitoring/Discharge Point 2 (Kiln 6 Stack) within 7 days, reporting the nature, duration and cause of the exceedance. This condition does not remove any reporting requirements specified under Part 5.7 sections 147-153 of the Protection of the Environment Operations Act (1997) and described in Condition R2.

O6.11 ALTERNATIVE RAW MATERIALS

O6.12 Except as provided by any other condition of this licence, the licensee is permitted to use the following alternative raw materials in the No 6 Cement Kiln only at the maximum quantity specified:

Alternative Raw Material	Source	Maximum Rate (Tonnes per annum)	Reference Documents located on EPA File LIC06/331
BOS Secondary Fines	BlueScope Steel Ltd Port Kembla	80000	Recovered Resource Specification BOS Secondary Baghouse Fines version 0.02, 9 October 2005 and Specific Immobilisation Approval 2006-S-03 valid until 30 June 2018. Approved for trial by EPA Notice No. 1055405 31 March 2006 and approved for use on 18 January 2008.
Mill Scale	BlueScope Steel Ltd Port Kembla, OneSteel Pty Ltd Newcastle	50000	Approved by EPA for use as separate input in Berrima cement kiln January 2005. Recovered Resource Specification for Mill Scale January 2005.

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Steel Slag	BlueScope Steel Pty Ltd Port Kembla	190000	Recovered Resource Specification for Steel Slag 20 May 2004. Approved by EPA Notice No. 1038051 23 June 2004.
Spent Fluidised Cracking Catalyst	VIVA Refining (Australia) Proprietary Limited - Corio (Vic) and Mobil Refining Australia Pty Ltd - Altona (Vic)	10000	Specific Immobilisation Approvals No. 2005-S-17 valid till 30 April 2018 and No. 2013-S-03 and Resource Recovery Order and Resource Recovery Exemption 'The Boral Cement spent FCC order May 2015' and 'The Boral Cement spent FCC exemption May 2016'
Cement Fibre Board	CSR Wetherill Park; James Hardie Australia Pty Ltd sites	80000	Resource Recovery Order and Resource Recovery Exemption for Cement Fibre Board - 'The cement fibre board waste order 2014' and 'The cement fibre board waste exemption 2014' and the Specific Resource Recovery Order and Exemption for James Hardie cement fibreboard 'James Hardie cement fibreboard waste order 2019 ('order') and James Hardie cement fibreboard exemption 2019 ('exemption') 16 December 2019 - 16 December 2020.
Blast Furnace Slag	Australian Steel Mill Services (ASMS) or JFE Mineral Company Ltd (Japan)	150,000	Resource Recovery Order and Resource Recovery Exemption for blast furnace slag - 'The Boral Cement blast furnace slag alternative raw material order November 2016' and 'The Boral Cement blast furnace slag alternative raw material exemption November 2016'

Note: 1. Gypsum produced from the Port Kembla Steelworks Sinter Plant sulphur rich gas stream was approved on 24 July 2007 as an additive to clinker. Approval filed on EPA file LIC07/908.

Note: The licensee may also receive uncontaminated non-conforming, off-specification or surplus cement or lime for blending with raw meal and recycling in the No 6 kiln.



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5 Monitoring and Recording Conditions

M1 Monitoring records

M1.1 The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.

M1.2 All records required to be kept by this licence must be:

- a) in a legible form, or in a form that can readily be reduced to a legible form;
- b) kept for at least 4 years after the monitoring or event to which they relate took place; and
- c) produced in a legible form to any authorised officer of the EPA who asks to see them.

M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of this licence:

- a) the date(s) on which the sample was taken;
- b) the time(s) at which the sample was collected;
- c) the point at which the sample was taken; and
- d) the name of the person who collected the sample.

M2 Requirement to monitor concentration of pollutants discharged

M2.1 For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

M2.2 Air Monitoring Requirements

POINT 2

Pollutant	Units of measure	Frequency	Sampling Method
Cadmium	milligrams per cubic metre	Special Frequency 1	TM-12, TM-13 & TM-14
Carbon dioxide	percent	Special Frequency 1 & Continuous	TM-24, CEM-3 & Procedure 1*
Carbon monoxide	percent	Special Frequency 1 & Continuous	TM-32, CEM-4 & Procedure 1*
Chlorine	milligrams per cubic metre	Special Frequency 1	TM-7
Chromium (hexavalent)	milligrams per cubic metre	Special Frequency 1	OM-4
Dioxins & Furans	nanograms per cubic metre	Special Frequency 1	TM-18
Dry gas density	kilograms per cubic metre	Special Frequency 1	TM-23
Hydrogen chloride	milligrams per cubic metre	Special Frequency 1 & Continuous	TM-8, PS-18 & Procedure 6*
Hydrogen fluoride	milligrams per cubic metre	Special Frequency 1	TM-9
Mercury	milligrams per cubic metre	Special Frequency 1	TM-12, TM-13 & TM-14
Moisture content	percent	Special Frequency 1	TM-22



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Molecular weight of stack gases	grams per gram mole	Special Frequency 1	TM-23
Nitrogen Oxides	milligrams per cubic metre	Special Frequency 1 & Continuous	TM-11, CEM-2 & Procedure 1*
Oxygen (O2)	percent	Special Frequency 1 & Continuous	TM-25, CEM-3 & Procedure 1*
Solid Particles	milligrams per cubic metre	Special Frequency 1 & Continuous	TM-15, PS-11 & Procedure 2^
Sulfur dioxide	milligrams per cubic metre	Special Frequency 1 & Continuous	TM-4, CEM-2 & Procedure 1*
Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	Special Frequency 1	TM-3
Temperature	degrees Celsius	Special Frequency 1 & Continuous	TM-2
Thallium	milligrams per cubic metre	Special Frequency 1	TM-12, TM-13 & TM-14
Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	Special Frequency 1	TM-12, TM-13 & TM-14
Velocity	metres per second	Special Frequency 1 & Continuous	TM-2 & CEM-6
Volatile organic compounds	parts per million	Special Frequency 1 & Continuous	TM-34 & CEM-8
Volumetric flowrate	cubic metres per second	Special Frequency 1 & Continuous	TM-2 & CEM-6

POINT 4

Pollutant	Units of measure	Frequency	Sampling Method
Solid Particles	milligrams per cubic metre	Yearly	TM-15

POINT 5

Pollutant	Units of measure	Frequency	Sampling Method
Solid Particles	milligrams per cubic metre	Yearly	TM-15

POINT 7

Pollutant	Units of measure	Frequency	Sampling Method
Solid Particles	milligrams per cubic metre	Yearly	TM-15

POINT 10

Pollutant	Units of measure	Frequency	Sampling Method
Solid Particles	milligrams per cubic metre	Yearly	TM-15

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POINT 11,12,13,14,15,16,17

Pollutant	Units of measure	Frequency	Sampling Method
Insoluble solids	grams per square metre per month	Monthly	Australian Standard 3580.10.1-2003

POINT 18

Pollutant	Units of measure	Frequency	Sampling Method
PM10	micrograms per cubic metre	Every 6 days	AM-18

POINT 19

Pollutant	Units of measure	Frequency	Sampling Method
Temperature	degrees Celsius	Continuous	TM-2

Note: For the purpose of this condition,

- i) Type 1 and Type 2 substances are defined as an aggregate of Sb, As, Be, Cd, Cr, Co, Pb, Mn, Hg, Ni, Se, Sn and V.
- ii) Volatile organic compounds may be replaced by Total organic carbon (TOC) or other equivalents as agreed by the EPA.

Special frequency 1 is defined as a round of air emission monitoring (for each of the pollutant/parameter nominated for a discharge point) conducted: every 3 months for the first 12 months, then every 6 months thereafter (following the successful completion of Proof of Performance Trials (PoP Trials)).

* Procedure 1 Quality Assurance Requirements for Gas Continuous Emission Monitoring Systems Used For Compliance Determination, US EPA

^ Procedure 2 Quality Assurance Requirements for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources, US EPA

Performance Specification 18 – Performance Specifications and Test Procedures for Hydrogen Chloride Continuous Emission Monitoring Systems at Stationary Sources and Procedure 6 Quality Assurance Requirements for Gaseous Hydrogen Chloride (HCl) Continuous Emission Monitoring Systems Used for Compliance Determination at Stationary Sources, USEPA

Note: LDP 2 - Continuous Solid Particle monitoring must be carried out in accordance with 'Performance Standard 11' (PS-11)

M2.3 Water and/ or Land Monitoring Requirements



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POINT 9

Pollutant	Units of measure	Frequency	Sampling Method
Biochemical oxygen demand	milligrams per litre	Each overflow event	Grab sample
Oil and Grease	milligrams per litre	Each overflow event	Grab sample
pH	pH	Each overflow event	Grab sample
Total suspended solids	milligrams per litre	Each overflow event	Grab sample

- M2.4 The selection of sampling plane position for all air emissions monitoring must be carried out in accordance with test method TM-1.
- M2.5 Continuous monitoring equipment for emissions, temperature and fuel feed rate, as required to meet the conditions of this licence and as agreed to by EPA must be installed prior to receipt of and use of Non-Standard Fuels in kiln 6.
- M2.6 For the purposes of the above tables, a data verification audit for all Continuous Emissions Monitoring Systems (CEMS) shall be conducted at the time of installation in accordance with the requirements of the applicable CEMS Performance Specification and Procedure. The frequency of ongoing data verification audits must be agreed to by the EPA in writing. The results of all data verification audits must be submitted to the EPA within one month after completion of the tests.

M3 Testing methods - concentration limits

- M3.1 Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with:
- a) any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or
 - b) if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or
 - c) if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.

Note: The *Protection of the Environment Operations (Clean Air) Regulation 2022* requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".

- M3.2 Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.

M4 Testing methods - load limits

Note: Division 4 of the *Protection of the Environment Operations (General) Regulation 2022* requires that



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monitoring of actual loads of assessable pollutants listed in L2.2 must be carried out in accordance with the relevant load calculation protocol set out for the fee-based activity classification listed in the Administrative Conditions of this licence.

M5 Weather monitoring

M5.1 At the Weather Station Monitoring Point, the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns.

Parameter	Units of Measure	Frequency	Averaging Period	Sampling Method
Rainfall	millimetres	Continuous	24 hour	AM-4
Temperature @2m	Degrees Celsius	Continuous	1 hour	AM-4
Temperature @10m	Degrees Celsius	Continuous	1 hour	AM-4
Wind Speed @10m	meters per second	Continuous	1 hour	AM-2
Wind Direction @10m	Compass points	Continuous	1 hour	AM-2
Solar Radiation @10m	Watts per square meter	Continuous	1 hour	AM-4
Barometric Pressure	hectopascals	Continuous	1 hour	AM-4
Siting	-	-	-	AM-1

M6 Recording of pollution complaints

M6.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.

M6.2 The record must include details of the following:

- a) the date and time of the complaint;
- b) the method by which the complaint was made;
- c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
- d) the nature of the complaint;
- e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
- f) if no action was taken by the licensee, the reasons why no action was taken.

M6.3 The record of a complaint must be kept for at least 4 years after the complaint was made.

M6.4 The record must be produced to any authorised officer of the EPA who asks to see them.

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M7 Telephone complaints line

- M7.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.
- M7.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.
- M7.3 The preceding two conditions do not apply until 3 months after: the date of the issue of this licence.

M8 Other monitoring and recording conditions

M8.1 MONITORING OF PROCESS PARAMETERS

The licensee must continuously monitor gas temperatures at the following process locations:

- a) in the zone where Non-Standard Fuels are fired at the main-firing end of Kiln 6;
- b) in the zone where Non-Standard Fuels are fired at or in the vicinity of the pre-calciner/de-Nox system of Kiln 6;
- c) at the outlet of the pre-heater strings of Kiln 6; and,
- d) at the inlet to the electrostatic precipitator and fabric filter.

6 Reporting Conditions

R1 Annual return documents

- R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:
1. a Statement of Compliance,
 2. a Monitoring and Complaints Summary,
 3. a Statement of Compliance - Licence Conditions,
 4. a Statement of Compliance - Load based Fee,
 5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan,
 6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and
 7. a Statement of Compliance - Environmental Management Systems and Practices.

At the end of each reporting period, the EPA will provide to the licensee notification that the Annual Return is due.

- R1.2 An Annual Return must be prepared in respect of each reporting period, except as provided below.

Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.

- R1.3 Where this licence is transferred from the licensee to a new licensee:
- a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the

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- reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
- b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

Note: An application to transfer a licence must be made in the approved form for this purpose.

- R1.4 Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:
- a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
 - b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.
- R1.5 The Annual Return for the reporting period must be supplied to the EPA via eConnect *EPA* or by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').
- R1.6 The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.
- R1.7 Within the Annual Return, the Statements of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:
- a) the licence holder; or
 - b) by a person approved in writing by the EPA to sign on behalf of the licence holder.
- R1.8 Where the licensee is unable to complete a part of the Annual Return by the due date because the licensee was unable to calculate the actual load of a pollutant due to circumstances beyond the licensee's control, the licensee must notify the EPA in writing as soon as practicable, and in any event not later than the due date. The notification must specify:
- a) the assessable pollutants for which the actual load could not be calculated; and
 - b) the relevant circumstances that were beyond the control of the licensee.

R2 Notification of environmental harm

Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

- R2.1 Notifications must be made by telephoning the Environment Line service on 131 555.
- R2.2 The licensee must provide written details of the notification to the EPA within 7 days of the date on which they became aware of the incident.

R3 Written report

- R3.1 Where an authorised officer of the EPA suspects on reasonable grounds that:
- a) where this licence applies to premises, an event has occurred at the premises; or



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- b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.
- R3.2 The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.
- R3.3 The request may require a report which includes any or all of the following information:
- a) the cause, time and duration of the event;
 - b) the type, volume and concentration of every pollutant discharged as a result of the event;
 - c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;
 - d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
 - e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
 - f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and
 - g) any other relevant matters.
- R3.4 The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

7 General Conditions

G1 Copy of licence kept at the premises or plant

- G1.1 A copy of this licence must be kept at the premises to which the licence applies.
- G1.2 The licence must be produced to any authorised officer of the EPA who asks to see it.
- G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.

G2 Other general conditions

G2.1 Completed Programs

Program	Description	Completed Date
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PRP 2: Alternative Fuels Program	BCSC is being given one year to trial specified alternative fuels with the objectives of reducing their TSP limit to 100mg/m ³ and Haz Subs to 1mg/m ³ . The PRP becomes invalid if the kiln upgrade is approved prior to the end date. A reduction in emissions from the main cement clinker kiln while utilising alternative fuel sources and conserving fossil fuels.	23-December-2003
PRP 1: Develop Site Specific Emission Limits	Original Title: Development of Site Specific Emission Concentration Limits. Desktop study to determine site specific emission factors appropriate to the stack from kiln 6 to protect ambient levels and meet ground level concentration criteria. Determine appropriate emission limits for key pollutants	11-December-2003
PRP 3: Cementitious Waste Management Plan	Original Title: Long Term Management Plan for Cementitious Wastes in Dry Tip Area. Control of environmental risk from potential asbestos contamination in waste cementitious aggregates in dry pit area. Better environmental controls.(&)	30-April-2008
PRP 6: Control of Fugitive Dust	The aim of this pollution reduction program is to minimise the local impact of fugitive dust emissions from the site by developing a management plan to address fugitive dust controls.	30-September-2011
PRP 7: Project Specific Noise Limits	To undertake background noise monitoring and establish Project Specific Noise Levels in respect of operational noise from the premises for all time periods (eg day, evening and night) that activities are carried on at the premises.	30-April-2018
PRP 8 Fugitive Dust Action Plan	Agreed actions from Dust Management Plan	28-September-2012
PRP 9: Landscape and Rehabilitation Works	Undertake revegetation/planting works as per schedule specified in PRP 9 and as described in Boral Cement Berrima Landscape and Rehabilitation Plan dated 28 September 2012.	31-March-2016
EIP: Investigation of new Chlorine and Sulphuric Acid Mist Limits - LDP 2 - Kiln 6 Stack	The licensee will investigate, through additional monitoring/stack testing achievable and appropriate limits (representing proper and efficient operation) for Chlorine and Sulphuric Acid Mist discharge limits for LDP 2 - Kiln 6 main stack. The EPA initially set limits at 50mg/m ³ for each pollutant following DPE granting consent for Mod 9 - Use of Waste Derived Fuels in Kiln 6. Prior to Mod 9 the limit for each pollutant was 100mg/m ³ . With additional stack monitoring requirements the licensee will derive appropriate and achievable limits and submit a report to the EPA.	26-August-2022

8 Pollution Studies and Reduction Programs

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U1 EIP: Further Investigation of new Chlorine and Sulphuric Acid Mist Limits - LDP 2 - Kiln 6 Stack

U1.1 **Background:** Prior to the use of non-standard fuels, the LDP2 limit for Chlorine was 200mg/m³ and the limit for Sulphuric Acid Mist was 100 mg/m³.

Following The Department of Environment and Planning (DPE) issuing approval for Modification 9 (Mod9) - Use of Waste Derived Fuels in Kiln 6 - the EPA reviewed this licence and modified monitoring, limit and operational requirements to be consistent with the consent and application documents submitted by the licensee. The limits attached to this licence for both Chlorine and Sulphuric Acid mist are 50mg/m³.

Based on modelling these limits will achieve appropriate ground level impact assessment criteria. The licensee has stated these limits are achievable, however they were based on a small data set, and it is possible that the licensee will be able to achieve lower limits.

The licensee previously undertook an investigation into new Chlorine and Sulphuric Acid Mist limits and collected data over a two-year period. The data supported a lower limit for both Chlorine and Sulphuric Acid Mist. The licensee has now installed and will commission a new Chloride Bypass System, and will investigate through additional monitoring/stack testing achievable and appropriate limits (representing proper and efficient operation) for Chlorine and Sulphuric Acid Mist discharge limits for LDP 2 - Kiln 6 main stack.

U1.2 **Undertaking:** The licensee must undertake emissions stack testing as required by the monitoring requirements of this licence over a two-year period, that is four 6-monthly stack tests.

The licensee must review the monitoring data obtained during the above period, and the monitoring data obtained during the previous EIP - *Investigation of new Chlorine and Sulphuric Acid Mist Limits - LDP 2 - Kiln 6 Stack*, and prepare a written report to the EPA recommending feasible and reasonable Chlorine and Sulphuric Acid Mist concentration limits. The recommended limits must consider data obtained from emissions stack testing, and the requirements of S124 of the Protection of the Environment Operations Act (1997), in particular demonstrating Kiln 6 is being operated properly and efficiently.

DUE DATE: 3 Months from the date of the fourth stack test (approximately 1st Quarter 2026).

9 Special Conditions

E1 Off-White Clinker Production - NOx Limits

E1.1 **Background:** The licensee manufactures both grey and off-white clinker at the Berrima plant. Production of off-white clinker occurs for several days at a time, approximately 4 times per year. This represents less than 10% of total annual clinker production at the Berrima plant. When making off-white clinker, kiln output is typically 15-24% less than when making grey clinker.

During production of off-white clinker in No. 6 Kiln, changes in gas flow and kiln temperature may result in elevated NOx concentrations at licensed discharge point 2 (the No. 6 Kiln stack). While NOx concentrations may be higher, the volumetric flow rate from the kiln will be lower. NOx emissions at LDP 2 are continuously monitored. Previously the licensee had limited stack test data for NOx while producing off-white clinker at



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Berrima, as this product was previously produced at the Boral Maldon Plant.

Prior to the commencement of use of non-standard fuels the licensee undertook a study on NOx emissions from discharge point 2 while producing off-white clinker. The Licensee collected monitoring data from 12 months of production (a minimum of 4 production runs of off-white clinker) to inform a written 'Off-White Clinker NOx Report'. The report concluded that NOx emissions from licenced discharge point 2 are slightly higher while producing off-white clinker when compared to grey clinker. The report also concluded that this elevated NOx was primarily due to the elevated temperature required for this process and that there are limited feasible and reasonable opportunities to reduce the NOx emissions during these periods. The Limits below apply to NOx emissions from licenced discharge point 2 when off-white clinker is produced.

E1.2 Limits: During periods of off-white clinker production in No. 6 Kiln (including a 24 hour period of transition to and from off-white clinker production) the following emission limits for NOx apply in place of the limits shown for grey clinker production in L3.2 Point 2:

- Continuous 24 hourly NOx limit - 1250mg/Nm3
- Continuous 1 hourly NOx limit - 1550mg/Nm3.

All other concentration limits specified in condition L3.2 Concentration Limits – Point 2 will apply when making off-white clinker.

E2 Special Dictionary - Non-Standard Fuel

E2.1 In this licence, unless the contrary is indicated, the terms below have the following meanings:

Word	Meaning
AKF1	A Non-Standard Fuel, being liquid oily residues comprising of recovered oil from the treatment of wash waters, oils, dewatered sludges and grease trap emulsions, that is approved as a Non-Standard Fuel by the EPA and in accordance with the requirements of development consent MOD-2-1-2004-i.
AKF5	A Non-Standard Fuel, being used and unwanted tyres, that is approved for use as a Non-Standard Fuel by the EPA and in accordance with the requirements of development consent MOD-2-1-2004-i.
HICAL 50	A Non-Standard Fuel, being spent aluminium electrode carbon, that is approved for use as a Non-Standard Fuel by the EPA and in accordance with the requirements of development consent MOD-2-1-2004-i.
Wood Waste	Residual wood waste sourced directly from a waste generator e.g. manufacturing facility. (Note Consent Definition - Mod 9 05.10.2016: organic fibrous wood residues and natural wood wastes that result from the processing of waste)



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RDF (Refuse Derived Fuel)	A Non-Standard Fuel, being a fuel produced by processing the residues of waste by sorting and shredding (particle size reduction), dehydrating (moisture removal), and removal of recyclable and hazardous materials.
Non-standard Fuel	Any Non-Standard Fuel as defined by the Department of Planning and Environment Consent No. 401-11-2002-i.

E3 Review and Update of Ambient Dust Monitoring Network

E3.1 Background

The premises currently monitors ambient dust using 1 real time dust monitor on the boundary of the premises as well as 1 high volume air sampler (HVAS) and 7 dust deposition gauges. The HVAS and deposition gauges are dated and provide limited monitoring data.

Contemporary dust monitoring is real time and informs a trigger action response plan (TARP) which initiates an operational response. This condition requires the licensee to submit a proposal to revise the existing ambient dust monitoring network incorporating contemporary real time monitoring equipment and a TARP. The EPA would consider a proposal that consolidates the number of monitors with consideration of replacing older monitors with more capable contemporary units.

Aim:

The aim of this condition is to:

- Review and update the existing ambient monitoring network;
- Incorporate contemporary monitors for dust / particulate monitoring;
- Compare data against relevant ambient standards and criteria; and
- Prompt an operational response to elevated levels of ambient dust / particulates.

E3.2 By **25 January 2024** the licensee must nominate a suitably qualified and experienced air quality professional (Professional) to the EPA to undertake this review.

By **3 May 2024**, the licensee must submit a proposal for a revised Air Quality Monitoring System completed by the approved professional to the EPA for review and approval.

The document must propose:

- (a) monitoring locations to ensure the effective coverage and assessment of emissions from the premises and impacts to surrounding areas and receivers (nearby residents),
- (b) contemporary real-time monitoring devices that monitor a range of dust fractions,
- (c) a trigger action response plan which detects and prompts a series of immediate management responses to elevated dust readings,
- (d) monitoring data reporting, and
- (e) implementation timeframes.



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Dictionary

General Dictionary

3DGM [in relation to a concentration limit]	Means the three day geometric mean, which is calculated by multiplying the results of the analysis of three samples collected on consecutive days and then taking the cubed root of that amount. Where one or more of the samples is zero or below the detection limit for the analysis, then 1 or the detection limit respectively should be used in place of those samples
Act	Means the Protection of the Environment Operations Act 1997
activity	Means a scheduled or non-scheduled activity within the meaning of the Protection of the Environment Operations Act 1997
actual load	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
AM	Together with a number, means an ambient air monitoring method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
AMG	Australian Map Grid
anniversary date	The anniversary date is the anniversary each year of the date of issue of the licence. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
annual return	Is defined in R1.1
Approved Methods Publication	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
assessable pollutants	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
BOD	Means biochemical oxygen demand
CEM	Together with a number, means a continuous emission monitoring method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
COD	Means chemical oxygen demand
composite sample	Unless otherwise specifically approved in writing by the EPA, a sample consisting of 24 individual samples collected at hourly intervals and each having an equivalent volume.
cond.	Means conductivity
environment	Has the same meaning as in the Protection of the Environment Operations Act 1997
environment protection legislation	Has the same meaning as in the Protection of the Environment Administration Act 1991
EPA	Means Environment Protection Authority of New South Wales.
fee-based activity classification	Means the numbered short descriptions in Schedule 1 of the Protection of the Environment Operations (General) Regulation 2009.
general solid waste (non-putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997

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flow weighted composite sample	Means a sample whose composites are sized in proportion to the flow at each composites time of collection.
general solid waste (putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
grab sample	Means a single sample taken at a point at a single time
hazardous waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
licensee	Means the licence holder described at the front of this licence
load calculation protocol	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
local authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
material harm	Has the same meaning as in section 147 Protection of the Environment Operations Act 1997
MBAS	Means methylene blue active substances
Minister	Means the Minister administering the Protection of the Environment Operations Act 1997
mobile plant	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
motor vehicle	Has the same meaning as in the Protection of the Environment Operations Act 1997
O&G	Means oil and grease
percentile [in relation to a concentration limit of a sample]	Means that percentage [eg.50%] of the number of samples taken that must meet the concentration limit specified in the licence for that pollutant over a specified period of time. In this licence, the specified period of time is the Reporting Period unless otherwise stated in this licence.
plant	Includes all plant within the meaning of the Protection of the Environment Operations Act 1997 as well as motor vehicles.
pollution of waters [or water pollution]	Has the same meaning as in the Protection of the Environment Operations Act 1997
premises	Means the premises described in condition A2.1
public authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
regional office	Means the relevant EPA office referred to in the Contacting the EPA document accompanying this licence
reporting period	For the purposes of this licence, the reporting period means the period of 12 months after the issue of the licence, and each subsequent period of 12 months. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
restricted solid waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
scheduled activity	Means an activity listed in Schedule 1 of the Protection of the Environment Operations Act 1997
special waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
TM	Together with a number, means a test method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .



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TSP	Means total suspended particles
TSS	Means total suspended solids
Type 1 substance	Means the elements antimony, arsenic, cadmium, lead or mercury or any compound containing one or more of those elements
Type 2 substance	Means the elements beryllium, chromium, cobalt, manganese, nickel, selenium, tin or vanadium or any compound containing one or more of those elements
utilisation area	Means any area shown as a utilisation area on a map submitted with the application for this licence
waste	Has the same meaning as in the Protection of the Environment Operations Act 1997
waste type	Means liquid, restricted solid waste, general solid waste (putrescible), general solid waste (non-putrescible), special waste or hazardous waste
Wellhead	Has the same meaning as in Schedule 1 to the Protection of the Environment Operations (General) Regulation 2021.

Mr Niall Johnston

Environment Protection Authority

(By Delegation)

Date of this edition: 17-November-2000

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End Notes

- 1 Licence transferred through application 140469, approved on 03-Jun-2002, which came into effect on 15-Jun-2001.
- 2 Licence varied by notice 1017975, issued on 23-Sep-2002, which came into effect on 25-Sep-2002.
- 3 Licence varied by notice 1021197, issued on 11-Jun-2003, which came into effect on 11-Jun-2003.
- 4 Licence varied by notice 1033484, issued on 24-Dec-2003, which came into effect on 18-Jan-2004.
- 5 Licence varied by notice 1038051, issued on 23-Jun-2004, which came into effect on 18-Jul-2004.
- 6 Licence varied by notice 1055405, issued on 31-Mar-2006, which came into effect on 25-Apr-2006.
- 7 Licence varied by notice 1063377, issued on 27-Jul-2006, which came into effect on 27-Jul-2006.
- 8 Licence varied by notice 1076344, issued on 03-Aug-2007, which came into effect on 03-Aug-2007.
- 9 Licence varied by notice 1079995, issued on 17-Dec-2007, which came into effect on 17-Dec-2007.
- 10 Licence varied by notice 1082098, issued on 16-Jun-2008, which came into effect on 16-Jun-2008.
- 11 Condition A1.3 Not applicable varied by notice issued on <issue date> which came into effect on <effective date>
- 12 Licence varied by notice 1092083, issued on 02-Dec-2008, which came into effect on 02-Dec-2008.
- 13 Licence varied by notice 1104214, issued on 08-Jul-2010, which came into effect on 08-Jul-2010.
- 14 Licence varied by correction to Scheduled Activity name, issued on 04-Nov-2010, which came into effect on 04-Nov-2010.
- 15 Licence varied by notice 1126350, issued on 03-May-2011, which came into effect on 03-May-2011.
- 16 Licence varied by notice 1502347 issued on 03-Nov-2011
- 17 Licence varied by notice 1503064 issued on 30-Mar-2012
- 18 Licence varied by notice 1505791 issued on 30-Apr-2012
- 19 Licence varied by notice 1507292 issued on 16-Jul-2012
- 20 Licence varied by notice 1508990 issued on 25-Sep-2012



Environment Protection Licence

Licence - 1698

21	Licence varied by notice	1509568 issued on 18-Mar-2013
22	Licence varied by notice	1514371 issued on 31-May-2013
23	Licence varied by notice	1523277 issued on 14-Jul-2015
24	Licence varied by notice	1535513 issued on 23-Dec-2016
25	Licence varied by notice	1582981 issued on 18-Dec-2019
26	Licence varied by notice	1613505 issued on 06-Oct-2023
27	Licence varied by notice	1635232 issued on 15-Dec-2023