



Berrima Cement Works Community Liaison Group Meeting

14 July 2023



Agenda

1. **Welcome and apologies**
2. **Operations summary**
3. **Environmental works update**
4. **Planning and projects**
5. **Communications update**
6. **General business and contacts**
7. **Next meeting**

Welcome and Apologies



Attendees

CLG representatives

Clive West, Berrima resident and Berrima Resident Association representative

Andrew Wood, New Berrima resident

Morwenna Zabaks, Wingecarribee Shire Council

Boral staff

Dean Beltrame, Operations Manager Berrima

Sharon Makin, Environment Business Partner South Coast and Southern Highlands

Roly Wong, Planning and Approvals Manager NSW/ACT

Kate, Woodbridge, Stakeholder Relations Manager NSW/ACT

Review of Minutes and actions arising from last meeting

Previous meeting Minutes – 1 December 2022

Matters arising from last meeting

- Add an information tab to the Berrima Cement Works webpage to explain “What is an electrostatic precipitator (ESP) trip?”.

Operations summary



Safety

- No serious incidents. 50% improvement on safety statistics on prior year – TRIFR 10.5 from ~ 300,000 man hours. Last year TRIFR 21.
- January major planned shutdown 0 reportable safety incident from 88,000 man hours
- June 1 week planned shutdown 0 reportable incidents



Customer and People

- No supply or product quality issues.
- Investors and company board site visits in June
- Participation in local careers day events (Southern Highlands, Wollongong, Goulburn).
- New starters: Renier Cronje (engineering manager), Paul Dalrymple (senior electrical engineer), Michelle Treble (H&S partner)
- Employee Mark Freeman achieved 50 year service

Production/Performance

- Clinker and cement volumes higher to last year (~ 1.315Mt & ~ 1.12Mt respectively).
- Energy costs continue to be a significant head wind (coal & electricity). Value Improvement Projects identified and progressing to assist mitigate these costs (SWDF, GBFS, Fibreboard, Cement milling efficiencies). Boral has increased product pricing also.
- Plant reliability has improved across all main assets. Kiln reliability last year 89% to 93% this year equivalent to extra 50ktpa clinker production capacity.
- Alternate fuels used 60kt - new record.
- Blast furnace slag used 120kt/6% average (last year 3.5%)



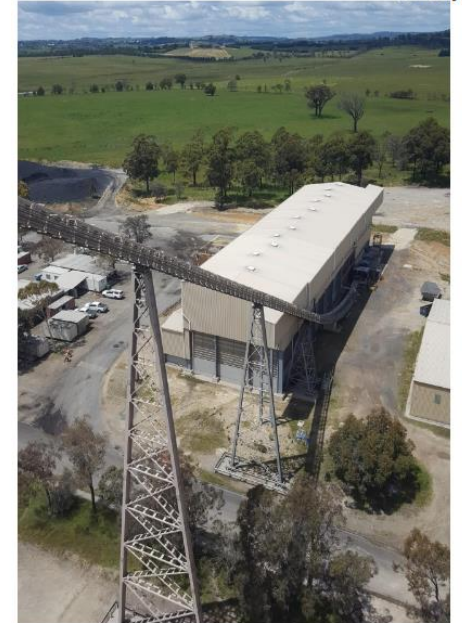
Environmental works update



Environmental overview

- Independent Annual Non-Standard Fuels Audit completed.
- Independent Audit of SWDF suppliers undertaken in April 2023, with no areas of concern.
- EPA Environment Protection Licence Annual Return submitted in June 2023.
- Annual Environment Management review issued to DPE in June 2023.
- Dust emission occurred on the 17th April following works to unblock the cyclone. 3 complaints were received. Incident was self-reported to EPA and DPE.

Boral Cement Works Berrima Kiln 6 Upgrade (DA 401-11-2002-i)
Independent Environmental Audit Non-Standard Fuels
January 2023



Prepared By:
International Environmental Consultants Pty Limited
"Longmead"
700 Wombeyan Caves Road
High Range NSW 2575

Environmental monitoring – air quality management

- Our last stack test was undertaken on over 18/4 and 20/4 2023.
- All stack tests YTD have been compliant along with our Continuous Emission Monitoring (CEMs).

The following licence comparison table shows that all analytes highlighted in green are within the licence limit set by the NSW EPA as per licence 1698 (last amended on 18 December 2019).

EPA	Parameter	Units	Licence limit	Detected values	Detected values (corrected to 10% O ₂)
EPA 2 - Kiln Stack No. 6	Mercury	mg/m ³	0.05	0.0047	0.0047
	Type 1 and Type 2 substances in aggregate	mg/m ³	0.5	≤0.034	≤0.034
	Solid particles	mg/m ³	50	22	19
	Nitrogen oxides	mg/m ³	1250	840	790
	Cadmium + Thallium	mg/m ³	0.05	≤0.0024	≤0.0024
	Chlorine	mg/m ³	50	<0.07	<0.06
	Dioxins & furans (I-TEQ middle bound)	ng/m ³	0.1	0.0076	0.0074
	Hydrogen chloride	mg/m ³	10	0.16	0.15
	Hydrogen fluoride	mg/m ³	1	0.082	0.074
	Sulfur dioxide	mg/m ³	50	6.8	6.1
	Sulfuric acid mist and sulfur trioxide (as SO ₃)	mg/m ³	50	5.9	5.3
	Volatile organic compounds	mg/m ³	40	2.6	2.5

Location	Test Date	Test Parameters*
EPA ID 2 – No. 6 Kiln Stack	18 April 2023	Dioxins & furans (PCDD & PCDF) Polycyclic aromatic hydrocarbons (PAHs) Type 1 & 2 substances in aggregate (Sb, As, Cd, Pb, Hg, Be, Cr, Co, Mn, Ni, Se, Sn, V) plus thallium
	20 April 2023	Solid particles Fine particulate matter <10µm (PM ₁₀), fine particulate matter <2.5µm (PM _{2.5}) Coarse particulates Sulfuric acid mist and sulfur trioxide (as SO ₃), sulfur dioxide Total fluoride Hexavalent chromium Speciated volatile organic compounds (VOCs) Nitrogen oxides (NO _x), carbon monoxide (CO), carbon dioxide (CO ₂), oxygen (O ₂) Hydrogen chloride, chlorine

* Flow rate, velocity, temperature, and moisture were also determined.

Management plan update

Construction Environment Management plan prepared for Tyre Chip Storage area construction and implementation and approved by DPE.

Operational Environment Management Plan has been reviewed and updated in line with Mod 15 approval associated with the Tyre Chip storage area.

Pending review by FRNSW prior to DPE approval



Boral Cement Limited

Berrima Works

Operation Environmental Management Plan

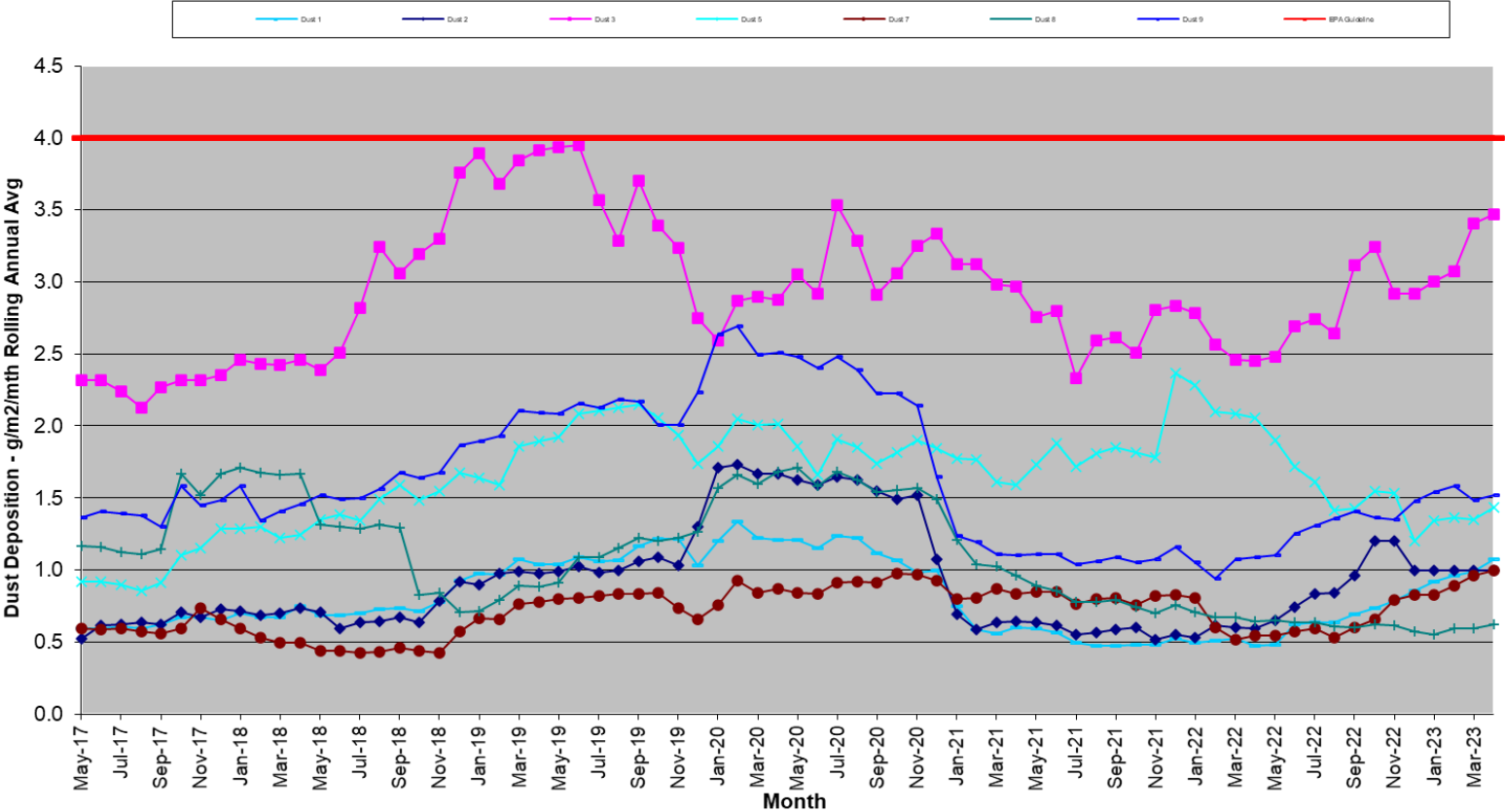
Document Filename:	CMT-ENV-002 Berrima Operation Environmental Management Plan
Document Owner:	Environmental Business Partner
Approved By:	Operations Manager

Version History:

Version	Date	By Whom	Description of Changes
1	30 November 2007	Grant Williams	Original version
2	7 October 2008	Grant Williams	Update to include requirements of Boral Cement corporate procedure, include NSF requirements.
3	September 2011	Alex Wnorowski	Global revision and formatting change
4	September 2014	Michael Curley	3-yearly review
5	March 2018	Michael Curley	Update to include new requirements from Modification 9 development consent
6	April 2020	Greg Johnson	Update to outcomes of MOD 9 POPT, MOD 11 (Use of HiCal 50), MOD 12 (Isotainer and whole of site noise limit)
7	June 2023	Sharon Makin	Update to include new requirements from Modification 13 and 15 development consent Update to include review based on DPE comments

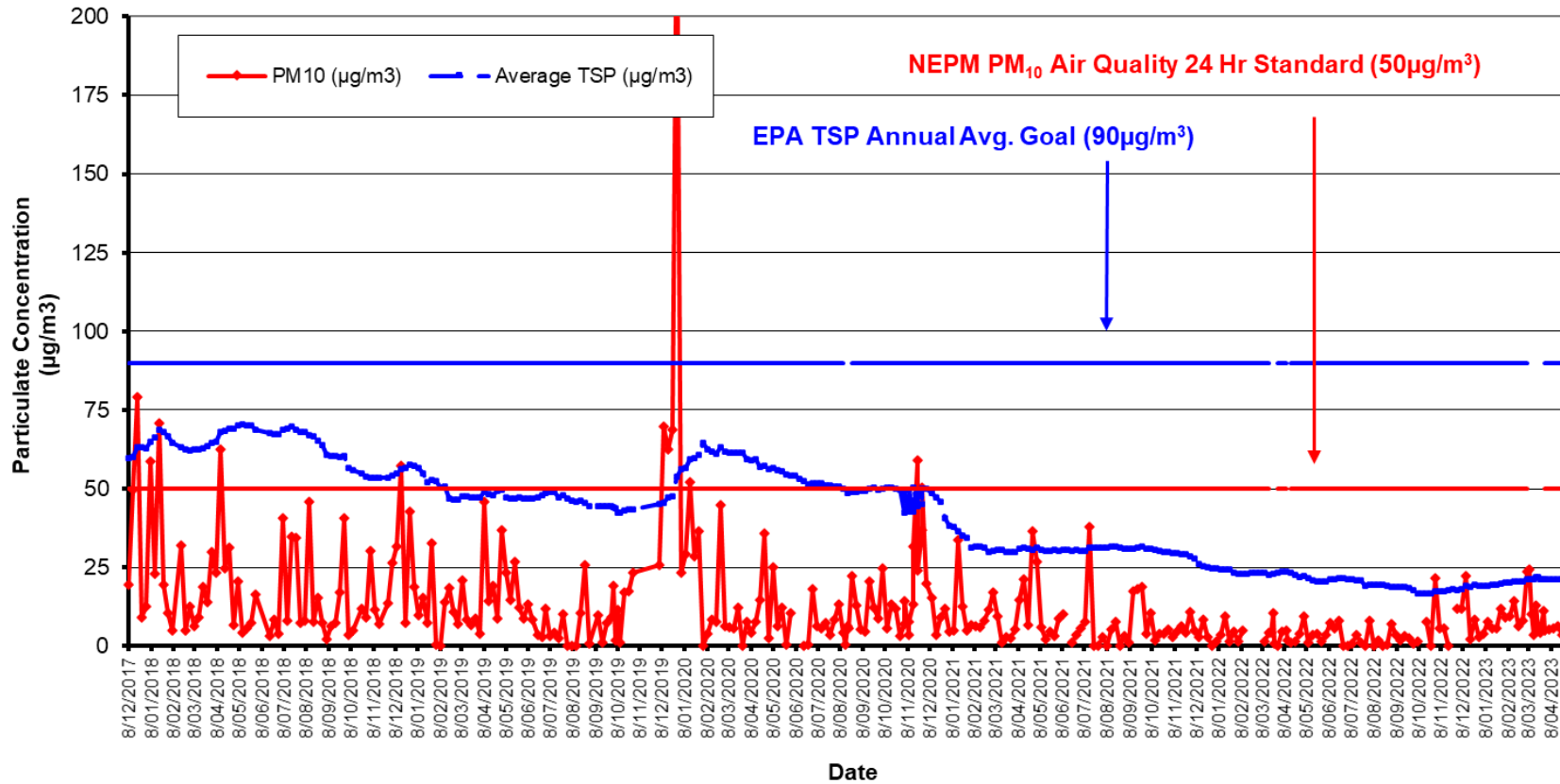
Environmental monitoring – dust deposition trends

Total Deposited Dust (12-Month Rolling Average)
Berrima Cement Works - May 2017 - April 2023



Environmental monitoring – high volume air sampler data

Ambient Air Quality Monitoring
High Volume Air Sampler Data, Dec 2017 - April 2023



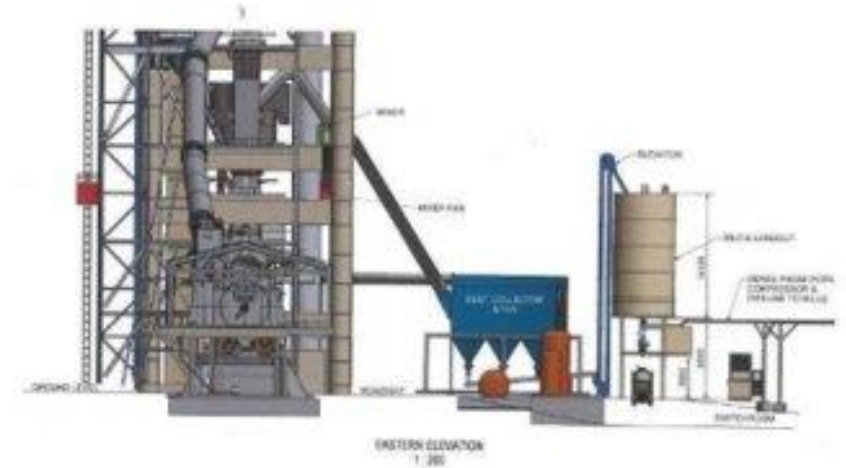
Property planning and approvals update



Modification 14 – solid waste derived fuels (SWDF)

Project Objectives

- Increase volume of SWDF from 100,000tpa to 250,000tpa;
- Expand existing SWDF storage and handling facilities;
- Construct alternative access to the site;
- Additional 13 truck movements per day; and
- Permit 24 hour delivery of materials.



Project status & progress

- Application exhibited 14-27 April 2022; agency submissions received.
- DPE Planning accepted response to agency submissions 22 March 2023.
- Submitted additional info 5 May 2023.
- 16 May 2023 BCD advised revised road alignment necessitated BDAR.
- BDAR submitted to DPE Planning 3 July 2023.
- Awaiting DPE Planning final assessment and determination.

Project link [Modification 14 SWDF Increase, Delivery Variation & Site Access | Planning Portal - Department of Planning and Environment \(nsw.gov.au\)](#)

Modification 15 – tyre chip storage and feed infrastructure

Project Objectives

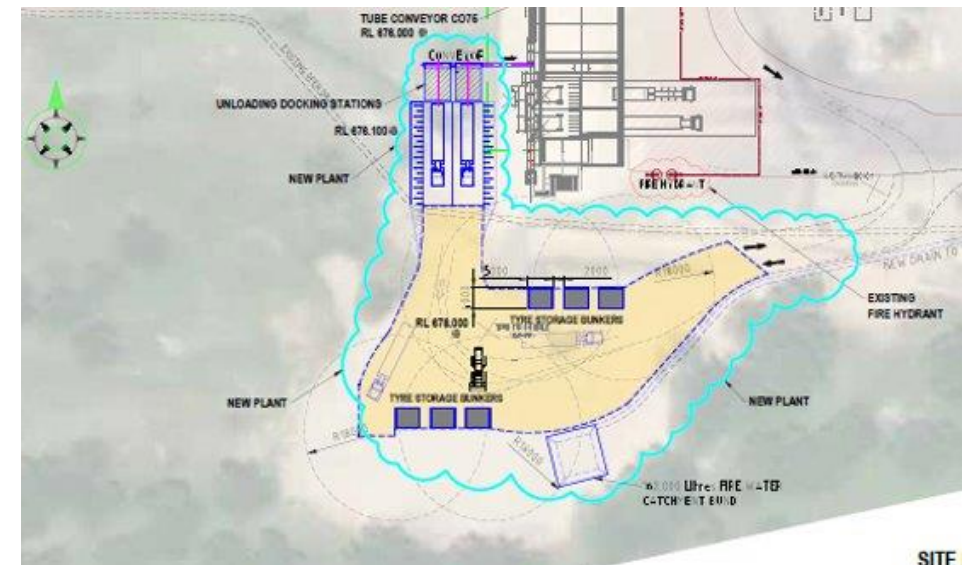
- Permit new permanent outdoor storage and feed system to support use of tyre chips;
- Modify relevant conditions of consent.

Tyre chip use already permitted under Kiln 6 development consent, no change in volume stored or used, no increase in trucks or hours.

Project status & progress

- Planning report and technical assessment lodged October 2022.
- Submitted response to agency submissions 25 January 2023.
- DPE Planning favourably determined application 17 March 2023.

Project link <https://www.planningportal.nsw.gov.au/major-projects/projects/berrima-cement-mod-15-tyre-chip-storage-feed-infrastructure>



Carbon Capture Pilot Plant

Project Objectives

- Up to 3-year trial to research carbon emissions reduction associated with clinker production;
- Import up to 2,000 tonnes recycled concrete aggregates from construction & demolition waste;
- Install pre-fabricated plant to trial sequestration of carbon into aggregates & sand;
- Pilot trials to focus on optimising temperature, residence time and relative humidity.

Project status & progress

- DA made to Wingecarribee Shire Council (WSC) September 2022;
- Consent documentation (11 April 2022) incompletely identified lots concerned.
- 3 May 2023 applied to modify consent to correctly identify lots.
- 27 June 2023 received WSC's favourable determination of modification application.

Project links:

<https://eservices.wsc.nsw.gov.au/T1PRProd/WebApps/eProperty/P1/eTrack/eTrackApplicationDetails.aspx?r=WSC.WEBGUEST&f=%24P1.ETR.APPDET.VIW&ApplicationId=23%2f0337> and

<https://eservices.wsc.nsw.gov.au/T1PRProd/WebApps/eProperty/P1/eTrack/eTrackApplicationDetails.aspx?r=WSC.WEBGUEST&f=%24P1.ETR.APPDET.VIW&ApplicationId=23%2f1217>.



Planned applications

Proposal	Timing
Modify SSD consent DA85-4-2005 (Cement Mill 7) to align noise management conditions of the ball mill consent with approved site wide noise management plan	Currently on hold
Modify SSD consent DA401-11-2002-I (Kiln 6) to increase maximum permitted granulated blast furnace slag (GBFS) raw material from 150,000tpa to 350,000tpa.	To be confirmed – preliminary review in progress.

Communications update



No expressions of interest were received after advertising locally to fill the vacant CLG position was received. Kate to do another campaign and advertise in the local paper.

A community investment framework for the next three financial years has been finalised.

General business and contacts



General business

Items of general business:

Contacts

Boral Berrima Cement contacts:

Reception

02 4860 2222

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Next meeting



Tuesday 14 November 2023



BORAL
Building something great