

Boral Cement Berrima

More than 90 years of building our community

June 2019

So far 2019 has proven to be a very busy year at the Boral Cement Berrima Works. We're refining our new fuel energy system, and introducing other improvements designed to improve both efficiency and our neighbours' experience of the site. Read on for more.

Connect with **Boral Berrima**

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Further fuelling the future...

At our special 'whole of community' meeting held in December, we announced the commissioning phase of the site's new Solid Waste Derived Fuels (SWDF) system had been successfully completed.

This achievement marked the initial end of more than **six years** of careful planning, construction and testing of the system, with around **\$12 million** invested in its establishment.



For those unfamiliar, **SWDFs** are fuels made from the **by-products** of other industries which would normally be sent to **landfill**. The fuels replace a portion of the **coal** traditionally used to provide the **up to 1400 degrees Celsius** temperatures needed for manufacturing in the Cement Works' **kiln**.

SWDFs in use at Berrima are **wood waste-derived fuel (WWDF)** and **refuse-derived fuel (RDF)**.

WWDF is processed from the leftovers of activities like **milling** and **furniture making**, and items like **freight pallets**. RDF is carefully made using the

combustible elements found in **construction and demolition wastes** such as **paper, cardboard** and some **plastics**.



To date the SWDF system has integrated well with the production process, and we have recorded **no** changes in ambient air quality since the commissioning and testing process started.

This success has put us on track to reach our approved limit of **100 000 tonnes per year** of SWDF use. To June, we've consumed around **32000 tonnes** - **14000** of WWDF, **18000** of RDF.

With things going so well, we're preparing to take the next step toward the limit. We're targetting use of up to **70000 tonnes** for the **2019-20** financial year and beyond, and have already been approved to extend the **on-site shed** which receives the SWDFs by **24 metres** to hold more fuel material for use.

Work has not long commenced on the extension which we expect will be completed (weather permitting) around **September**.

We've also started looking at installing a **chloride bypass** pump on the plant's **calciner**. This again will enhance our ability to increase volumes of SWDFs - if proceeded, this may be a **12-18 month** project.

Our ultimate aim is to see use of the fully approved 100 000 tonnes per year limit by **2021**. If you'd like to know more about our SWDF system, visit our website – www.boral.com.au/berrimacement.



More information? www.boral.com.au/berrimacement.

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Hi (again) to HiCal 50...

As our use of the SWDF system increases, so too does our exploration of other kiln fuels permitted under existing planning and environmental consents.

One of these is **HiCal 50**, last used at the Berrima site during **2008**. HiCal 50 is a fuel processed out of spent **carbon anode**, a by-product of **aluminium smelting**.



Simply, carbon anode is very similar to **coal**. It consists of **carbon** and **bitumen binder**, and just like the SWDFs in use at Berrima, would be sent to landfill if not used by the Cement Works.

Following consultation with the **NSW Department of Planning and Environment (DPE)** and the **Environment Protection Authority**, approval has been given for our proposed storage and handling of HiCal 50. We've accordingly started bring in up to **15000 tonnes** we've secured from the Hunter Valley.

At present, we can only use HiCal 50 as an additive while clinker production is **occurring**. Using HiCal 50 as part of the kiln **start up** and **shut down** procedure requires a minor **modification** to the planning consent which will be submitted to the DPE.

Under this modification, we'll propose that HiCal 50 will only be consumed when blended with coal at a **maximum** rate of **one tonne per hour**, at a ratio of **96 percent** coal to **four percent** HiCal 50.

Introducing isotainers

Residents around the Berrima Cement Works are well used to the volume of trucks associated with our operations. We're working on a new initiative which could reduce these numbers substantially in future.

Thanks to recent advances, across Boral we've been looking at how to make more use of **isotainers** to ship materials around the country. An isotainer is a tank-like vessel set inside a rectangular frame, making it easier to transport and store.

The average isotainer also holds around **28 tonnes** – the same as a **standard cement tanker**.



At Berrima, we're about to lodge plans with the DPE to start on-site **isotainer handling activities**, with a view to potentially transfer **up to 200 000 tonnes** of our cement from road to rail transport each year.

The new activities could see **three** trains per week, loading **up to 56** isotainer wagons for shipment around the state. Over a year, this could mean taking **up to 148** trucks per week off the road.

If approved, we hope to begin our activities during **2020**.

Upgrading our water line

Another upcoming project which will require planning approval is the replacement of the water pipeline connecting the site to the Wingecarribee River.

The current pipeline, built from steel during the **1940s**, has now run its course. The replacement will be aimed at ensuring the **reliability** of supply to the site, and minimising any potential for **water loss**.

Following liaison with neighbouring landowners, we'll lodge the necessary application with the DPE. It is hoped work on the new pipeline will begin later this year and be complete by **2020**.

Community contact

Our Cement Works' **Community Liaison Group (CLG)** will meet during **June** after our efforts to re-form it were successful.

The CLG is a 'bridge' between **local residents** and the **operations** via which information is shared, site performance reviewed and matters of concern discussed.

The new CLG community representatives are **Andrew Wood** (New Berrima), **John Barrett** (Burradoo), and **Clive West** (President, Berrima Residents Association).

More information? www.boral.com.au/berrimacement.

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