



**COCKBURN  
CEMENT**

Building a Stronger WA since 1955

an ADBRI company

# Fact Sheet



## Odour

For over 60 years, Cockburn Cement Limited (CCL) has been producing cement and lime products at our Munster operation. Since then, our kilns and equipment have gone through many upgrades to reduce the risk of impact on the environment and community.

We are proud of our history as a local employer and manufacturer of cement and lime products in Western Australia. Our products are essential for water treatment, and critical inputs to WA's construction and resource industries.

## Odour investigations

Cockburn Cement has been working with the Department of Water and Environmental Regulation (DWER) to investigate and understand odour complaints in the Munster, Beeliar and Yangebup suburbs of the City of Cockburn.

This process has included both investigations required by the Munster licence and CCL initiated voluntary investigations and research. The process of making lime requires us to gradually heat shellsand at various temperatures within the kilns. One of the CCL initiated independent laboratory investigations identified an odour can be generated when shellsand, the raw material for lime production, is heated between 400°C and 600°C. Trials indicate odour causing substances can be destroyed before they are emitted by modifying the process and exposing the shellsand to temperatures above 600°C.

## Trial odour reduction modifications

CCL has developed a potential solution that would change the temperature profile in the kiln to destroy odour causing substances in the process before they are emitted.

In February 2021, CCL submitted a works approval to DWER to permit us to trial this innovative engineering solution to address odour concerns at our Munster plant. By changing the feed entry point and the temperature profile in the pre-heater tower, we expect that a large proportion of odour causing substances will be destroyed immediately, prior to exhaust through the stack. The process modification does not introduce anything new to the process, it just changes the feed location. If these works are approved and trials are successful, this approach can be implemented and fully operational by the end of 2021.

The works approval and associated trial align with CCL's ongoing commitment to minimise the risk of community impacts of our operations. CCL will update the community and stakeholders once the results of the trial have been assessed and look forward to finding an effective and permanent solution to odour concerns

## Contact us

You can contact us on the Community Feedback Hotline on 1800 156 826 or email us at [community@cockburncement.com.au](mailto:community@cockburncement.com.au)



# FREQUENTLY ASKED QUESTIONS (FAQS)

## ODOUR

### Q: What is causing the odour detections around Munster?

A: There are many sources of odour within the local community near the CCL Munster facility. Within the CCL manufacturing process, an independent investigation commissioned by CCL, identified that the odour generated in the stacks at our Munster facility is from heating the shellsand we use for making lime between 400°C and 600°C. Both DWER and CCL have eliminated the use of coal as a fuel source as a contributing factor.

### Q: What is CCL doing to resolve odour concerns?

A: CCL has conducted independent investigations additional to licence requirements, to identify potential sources of odours in the kilns and possible solutions. The investigation found odour can be generated when the raw material, shellsand, is heated between 400°C – 600°C. By modifying the process and exposing the shellsand to higher temperatures earlier, trials indicate it can destroy odour causing substances before they are emitted, this is referred to as the Engineering Solution. This trial has been submitted to DWER as a works approval. If accepted and trials are successful, this approach can be implemented and fully operational by the end of 2021.

## ODOUR REDUCTION TRIAL

### Q: What are the benefits of the Engineering Solution?

A: This solution changes the way that we manufacture lime, targeting the destruction of odour causing substances in the process by thermal oxidation. Applying the methodology to laboratory scale trials has proved odour removal efficiencies between 70% and 90%. The process modification does not introduce anything new to the process, it just changes the feed location. This means if the trial proves successful, this solution can be fully implemented and operational this year, providing immediate benefits to the community.

### Q: Why couldn't this be implemented earlier?

A: The Engineering Solution to reduce the risk of odour was identified following independent investigations over multiple years. In 2020 we identified the source of odour and an Engineering Solution was identified through the evidence and support of our earlier research and investigations. Once the source was identified, CCL were able to undertake significant research with the outcomes informing the methodology for the laboratory

scale trials. CCL have submitted these findings to DWER as part of the works approval which aims to reduce the risk of these odours in the kiln stacks.

### Q: When will the solution be in place?

A: If the works approval application is approved by DWER we can begin the odour reduction trial in Autumn or Summer 2021. If the trial is successful, the modifications can be made operational this year.

### Q: Is there scientific evidence which affirms that the proposed method will eliminate kiln odours?

A: Yes. The investigations initiated in 2018 to identify the odour source, were conducted by independent experts separate from CCL operations. The laboratory scale trials conducted in 2019 and 2020 have shown odour removal efficiencies between 70% to 90%.

### Q: What is the process now that CCL has submitted its application for works approval to DWER?

A: The proposed trial methodology was submitted to DWER as a works approval. DWER approval is required before CCL can undertake any further steps. DWER undertakes risk-based reviews on works approvals to ensure they are effective in controlling risks posed to public health and the environment. DWER will assess the application, seek stakeholder comments and issue a decision on the application. If the application is approved, then the Works Approval will be published and CCL can then undertake the trial in accordance with the approval and will report the results of the trial to DWER.

## Engineering Solution

