

Feed diversion trials to reduce odour at Munster

Cockburn Cement (CCL) 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.

Our extensive works and investigations over many years has found that odour can be generated in CCL's stacks when the raw material, shellsand, is heated between 400°C - 600°C. By modifying the process and exposing the shellsand to higher temperatures, earlier laboratory trials indicated it can destroy odour causing substances before they are emitted, this is referred to as the Engineering Solution.

Background

In August 2022, DWER approved CCL to conduct trials to explore ways to reduce the risk of odour in the Kiln 6 stack at the Munster site. Since then, we have undertaken engineering work to build the required infrastructure and operated engineering trials over the summer period - 2022 - 2023.



Please scan the QR code for more information about the feed diversion trials.



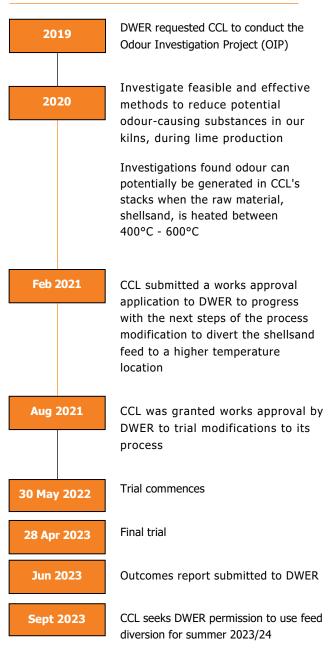
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Results

The results of the feed diversion trials are positive and show a significant reduction in odour detection and intensity in the stack during the testing period. The Environmental Commissioning Report that was submitted to DWER on 30 May has demonstrated that the trial was successful at significantly reducing potential odour from Kiln 6.

Figure 1- Project Milestones



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 Cockburn Cement Limited (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 shellsand to make lime between 400°C - 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 undertaken extensive work over many years to investigate community odour concerns. Through those investigations, in August 2021, DWER approved CCL's application to conduct trials to explore ways to reduce the risk of odour in the Kiln 6 stack at the Munster site. Since then, we have undertaken engineering work to build the required alternate feed infrastructure and operated engineering trials over the 2022 - 2023 summer period. Pleasingly, the trial has been successful.

Q: How long did the feed diversion trial run for?

A: On 30 May 2022, environmental commissioning of the feed diversion commenced and we ran a series of discrete trial periods until the last trial on 28 April 2023. The total days for feed diversion testing during this time was 25.3 days.

Q: What are the findings of the trial?

A: The results of the trials are positive and show a significant reduction in odour detection and intensity in the community during the testing period. CCL has provided the results to DWER which show:

- Significant reduction in Odour Units from baseline stack testing results.
- Reduced community complaints received by CCL when Kiln 6 was operating the trial.
- No significant changes to the emissions profile from Kiln 6.
- No process safety concerns.
- Demonstrated ability to implement/continue use of the technology by summer 2023/24, pending approval from DWER.

Q: How was the success of the trial evaluated?

A: The success of the trials was measured by evaluating the below points at different process temperatures:

- The proportion of odour units recorded in the stack
- Undertaking independent field odour surveys in the community
- The number of community complaints about odour

Q: When will CCL be able to restart using the feed diversion?

A: Cockburn Cement has written to DWER seeking permission to use feed diversion in at Kiln 6 in summer 2023/24.

Q: Where will I be able to find information about the feed diversion trial outcomes?

A: We invite you to meet directly with our team to learn more about the feed diversion trial investigations, the findings and next steps. If you would like more information about the trials, please register your interest to attend an information session in October. To register please visit https://cockburncementcommunity.com.au/ or contact the project team on 08 9411 1000.

We look forward to sharing the outcomes of the trial with the community through regular webpage updates.

Feed diversion

