



COCKBURN CEMENT

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Frequently Asked Questions on Health

From time to time questions are raised with Cockburn Cement by residents living close to the Munster plant about potential health effects from operations at the plant.

We have prepared a list of frequently asked health questions below:

Q: What do we do at the Cockburn Cement Munster site?

A: The Kilns at the Cockburn Cement Munster Plant manufacture lime using natural gas and coal. Lime is produced in a rotary Kiln using Shellsand as the main raw material. Cement is ground in the cement mills using imported cement clinker (an intermediary ingredient in the cement manufacturing process). The fuels used at the Munster plant are natural gas and coal, which are used to heat the Kilns to approximately 1,100 degrees Celsius.

Q: How is air quality measured and what monitoring is done at the Munster Plant?

A: Continuous Stack Monitoring

Cockburn Cement's two Kilns have monitors installed which continuously measure particulate emissions from the stacks.

The data is logged and reported to the Department of Water and Environment Regulation (DWER). A live feed is also available on the Cockburn Cement Community website www.cockburncementcommunity.com.au.

Quarterly Independent Testing Program

As part of Cockburn Cement's EPA operating license, stack emissions are tested on a quarterly basis by an independent laboratory. The results of the testing are modelled for ground level concentration and then compared to relevant national health guidelines.

The levels of key air quality indicators are consistently better than the national standards.

Q: Are there adverse health effects to local residents linked to emissions from Cockburn Cement?

A: Testing and modelling of stack emissions to ground level concentrations has shown that there are no expected health impacts to the neighbouring population.

From a broader community perspective, Cockburn Cement's Munster operations are part of the Kwinana Industrial area. In 2012 a Kwinana children's health study was conducted by researchers from the Telethon Institute for Child Health Research. The study was funded by the Western Australian Department of Health.

Kwinana Children's respiratory health study findings:

From this study, the researchers found that neither breathing symptoms nor lung function was worse in Kwinana children compared to other Perth children and this did not seem to be affected by the distance of homes or schools to industry.

Download Kwinana children's respiratory health study report (PDF 129Kb) for further information:

<https://goo.gl/R6zhfD>

or visit www.telethonkids.org.au.

Q: Do you monitor the health of your workers?

A: Cockburn Cement undertakes various annual health tests on employees, including lung function testing.

Cockburn Cement has completed personal dust monitoring on employees to gain baseline

There has been no evidence of our employees' health being adversely impacted as a result of working at the plant, despite thousands of people being employed at the plant since 1955, some for decades!



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Summary

Cockburn Cement has taken considerable actions over the last 10 years resulting in significant improvements in the Munster plant environmental signature.

Dust emissions from the site have, as a consequence of these actions, been reduced to extremely low levels, as evidenced by continuous dust monitoring at and around the site.

Cockburn Cement Limited's operations in Western Australia were commenced at the Munster plant in 1955. As both the Munster plant and the local residential population have grown over the past 60 years, so too have Cockburn Cements efforts to minimise its potential impacts on the local environment.

Major actions undertaken by Cockburn Cement include:

- Installation of bag filters on the two lime producing kilns, Kilns 5 and 6 (in 2012 and 2013), at a cost of more than \$50 million.
- Cessation of clinker production in Kilns 3 and 4 at the end of 2014, eliminating stack emissions from those kilns and reducing potential fugitive dust.
- Regeneration via tree node planting across the entire Munster plant has helped to reduce fugitive dust and provide habitat for a range of native flora and fauna.
- Improved coal stock pile management and monitoring for thermal hot spots.
- Fugitive dust management via the use of road sweepers, water trucks and dust suppressants on open stock piles.

Community Feedback Hotline

We welcome feedback from the community about our operations. It assists us to continue improving our environmental management and community engagement.

There are four ways you can submit feedback:

Community Feedback Hotline:

If you have questions or feedback for us, you can phone free call number **1800 156 826** and leave a message including your name, nature of feedback, address and return phone number.

Email: community@cockburncement.com.au

Mail: Community Feedback, Cockburn Cement, PO Box 38, Hamilton Hill, WA 6963

Online: Fill in the online form on www.cockburncementcommunity.com.au

