



COCKBURN CEMENT

Cockburn Cement Fact Sheet

Is it a steam plume or a dust plume?

Members of the community advise us that from time to time, they can see a visible plume coming from our kiln stack(s) and they ask if the plume is steam or dust?

Often the difference can be determined based on certain characteristics these plumes may display. It is important to remember that due to light refraction, plumes can appear different at different angles around the kiln stack(s) and in particular, from different locations in the community.



STEAM

A gap between stack and plume.

White in colour – on a windy day can appear dense with a dark patch underneath which is a reflection of ground colour.

More noticeable on cold days – just like our breath – and in the evenings when atmospheric temperature drops.



DUST

No gap between stack and plume.

White in colour.

Particles will wave as they exit the stack – like a heatwave.

Dust plume is continuous and won't evaporate like steam.

Steam plume

Our kilns operate within a temperature range of 1100°C – 1650°C with a moisture content of the kilns exit gases at approximately 10-30%. The combustion process of a kiln at the stack can present as a 'plume'.

Key steam plume characteristics include:

- A gap between the kiln stack and base of the plume.
- White in colour – on a windy day can appear dense with a dark patch underneath which is a reflection of ground colour.
- More noticeable on cold days – just like our breath – and in the evenings when atmospheric temperature drops.

In many cases the moist air exiting the stack(s) is too dense for light to effectively penetrate and as such, the plume can be quite visible from a distance. These steam plumes are far more visible during the cooler months of the year.

Dust plume

Cockburn Cement continues to implement technology solutions to reduce the potential for dust plumes to exit the kiln stack(s). Such technology includes the use electrostatic precipitators (electrically charged filtration of exhaust gases) and baghouse filter systems which trap particulates in large bag filters.

Cockburn Cement has strict environmental operating parameters for particulates and uses continuous monitoring devices to check emission limits. Although these measures are in place, any disruption to the production process (ie power failure or mechanical breakdown) has the potential for a dust plume to be visible.

Key dust plume characteristics include:

- No gap between kiln stack and plume.
- White in colour.
- Particles will wave as they exit the kiln stack – like a heatwave.
- A continuous 'tail' that does not evaporate like steam.

Cockburn Cement will continue to improve the environmental performance of its operations to reduce potential impacts on the surrounding community and environment.

Contact us

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