

ECan imposes dust monitoring on Canterbury quarries

Bernie Napp - Sat, 23 Jun 2018

Canterbury quarry operators will have until December 1 to install dust monitors at all property boundaries “within 500 metres of someone’s home”, Environment Canterbury (ECan) says.

ECan’s announcement on Friday accompanied the release of the final results of the Yaldhurst Quarry Dust Monitoring Programme.

At three monitoring sites near quarries, measured airborne dust levels over four months were up to 42 per cent higher than at a background monitoring site, ECan contractors, Mote and Emission Impossible, reported.

Environment Canterbury chief operating officer Nadeine Dommissé said in a statement: “While the results show there is no serious public health risk, there is a nuisance dust issue from time to time.”

“We appreciate nuisance dust is a concern for some residents, and we want them to know we have, and are, taking this seriously.”

Mandatory dust monitoring at quarries

All quarries within 500 metres of residential housing in Canterbury will be required to install dust monitors on their boundaries by December 1, Dommissé said.

“If there is no practicable reason why these boundary monitors are not in place by December 1, we will be taking enforcement action.”

The monitors must run continuously, and be fitted with an alarm system to send the quarry manager a message if dust levels begin to approach the threshold level for nuisance.

If the alarm is triggered, the quarry will be expected to stop work, add more water carts or take other actions, to avoid a breach of the guideline one-hour safe level for dust exposure.

In the event of a breach, the quarry will need to cease operations until dust is managed to acceptable levels.

Dommissé said: “If a quarry breaches the trigger level, we’ll investigate to find out what action they took to stop dust leaving the quarry before deciding what further action we need to take.”

PM10 results

Paul Baynham’s report to ECan covered the period December 22 – April 21.

Maximum hourly PM10 concentrations in Yaldhurst were significantly higher at 147-284 micrograms per cubic metre, than those measured at the background site (99 µg/m³).

While maximum daily PM10 concentrations at one site in Yaldhurst were similar to maximum daily PM10 concentrations at the background location, the figures for all other Yaldhurst sites (56-65 µg/m³) were higher than background (45 µg/m³).

“The 4-month PM10 concentrations at sites 2 and 6 in Yaldhurst (21-23 µg/m³) were only slightly higher than that measured at the background location. The remainder of 4-month PM10 concentrations measured at Yaldhurst (sites 1, 3 and 5) were significantly higher (24-27 µg/m³) than background (19 µg/m³).”

Respirable crystalline silica

During three months, only two results were detected above the RCS detection limit (20 µg/filter), both at one site, Baynham said.

“The average of the three months monitoring at Site 3 indicates an average RCS concentration of 0.4 µg/m³. All other monitoring sites were below detection limits during the monitoring period.”

Residents’ concerns

The programme stemmed from Yaldhurst residents’ concerns expressed to ECan and the Canterbury District Health Board in late 2016 over health impacts from exposure to airborne quarry dust.

Funding of \$120,000 for the programme was provided by ECan, Christchurch City Council, the DHB, and quarry companies.

Yaldhurst quarries companies named in dust monitoring reports are: Blakely Construction, Christchurch Ready Mix Concrete, Fulton Hogan, GBC Winstone, KB Contracting and Quarries, Road Metals, and Taggart Earthmoving.

MinEx and AQA respond

The National Health and Safety Council for the mining and quarrying sector said Yaldhurst residents “are now confirmed as having no reason to fear being exposed to dust that can cause the dangerous lung disease of silicosis”.

“If there’s any risk of RCS exposure it’s to quarry workers, not neighbours, who most often are at least 100 metres from a quarry face, with a huge amount of air space between them. MinEx continues working with quarries and WorkSafe to



reduce any risk to quarry workers,” MinEx CEO Wayne Scott said.

“It needs to be understood that all dust is recorded. This includes diesel particulates, and dust from roads, farms and riverbanks – not just dust created by quarries.”

“That said, while many quarries have good dust management in place, all operators need to continue to lift their game, because any dust that emerges from a quarry – as from any farming or earthmoving operation – is annoying to close neighbours.”

Scott said Canterbury quarries are currently working on a voluntary code of practice to reassure councils and residents that nuisance dust can be properly managed.

The Aggregate and Quarry Association said the results of the combined ECan, CCC and CDHB Yaldhurst area wide testing near Canterbury quarries shows dust issues can largely be managed within existing resource consents.

“On the back of these monitoring results, our industry also wants to engage with Canterbury councils, so we can discuss how we can work together to ensure dust, noise and transport issues from quarries are framed and managed under appropriate management practices, and ultimately resource consents,” AQA president Brian Roche said.