

Asbestos in serpentine confusion clarified

Bernie Napp - Tue, 28 Aug 2018

A Mossburn quarry owner has shed light on the closing of three serpentine operations late last year, following WorkSafe concerns over asbestos presence in the fertiliser input.

“The problem in New Zealand is that most testing laboratories cannot distinguish between the various forms of magnesium silicate,” Bob Pearson of Southland Serpentine told *Inside Resources*.



“You get a positive identification and they report it as chrysotile, which is incorrect. It creates a huge amount of stress. That’s how confusion has developed, including late last year when there was a hiccup.”

Chrysotile is the least fibrous of the most common types of asbestos, and is the one that can occur in New Zealand in serpentine group minerals.

Australian laboratory clears serpentine

Along with Southland Serpentine, the other quarries closed late last year are: J Crook & Sons at Greenhill, Southland; and Lee Processors, Brightwater.

The breakthrough for Southland Serpentine was to enlist a Sydney-based company, Hibbs & Associates, to test their product before it leaves the quarry.

This laboratory can distinguish between the magnesium silicates in the serpentine group, e.g. between the non-asbestos minerals, antigorite and picrolite, and chrysotile.

“The result is that any product that we have is cleared by our lab in Australia, which is accepted as an authority by WorkSafe,” Pearson said.

Following the quarry closures, Hibbs’ Alan Rogers, an internationally-recognised expert in the field, visited New Zealand to meet Ravensdown senior staff, at Southland Serpentine’s initiative.

Three weeks later WorkSafe brought Rogers for a second visit, to improve the understanding of inspectorate staff on asbestos and serpentine.

WorkSafe then helped Southland Serpentine draw up an asbestos management plan under which it has operated since.

“From our point of view, we are very happy,” Pearson said. “I know of some other mines who have been told by WorkSafe they must get clearance from Hibbs & Associates.”

Lee Processors

WorkSafe confirmed this week that Lee Processors is in breach of the Health and Safety at Work (Asbestos Regulations) 2016, which entered into force in April this year.

This month Lee Processors had a shipment of [serpentine returned](#) from the North Island where it was tested for the presence of asbestos.

“The Nelson area quarry has ceased extraction at this point in time pending the development of a suitable asbestos management plan,” a WorkSafe spokesperson said.

“The operator must have an asbestos management plan that demonstrates the product can be mined and supplied within safe limits. The asbestos management plan would contain the sampling and testing standards.”

Chrysotile can be harmful to human health if the airborne concentrations and exposures are high enough, the spokesperson said.

WorkSafe has a goal of reducing asbestos-related disease in the workplace by 50 per cent by 2040.

No changes to regulations planned

The spokesperson said WorkSafe is not actively considering any changes to the approved 2016 [code of practice](#) for managing workplace exposure to asbestos.

“Significant changes to ACOPs require public consultation and Ministerial sign off. We are keeping a record of potential changes needed, and will consider when to do an update as part of the construction harm prevention plan WorkSafe is developing.”

In preparing the ACOP and supporting material, WorkSafe has drawn on Australian publications on managing naturally-occurring asbestos, as well as relevant information from the UK.

The New South Wales Government guidelines include as worker exposure prevention measures: dust suppression, e.g. with water, fencing off at-risk areas, burying quarried asbestos underground, avoid working in dry, windy conditions, equip workers with asbestos-proof PPE, and appropriate decontamination and/or disposal of PPE equipment.

MinEx

Wayne Scott, CEO of the extractives industry health and safety council says asbestos can be managed “quite easily” when *in situ*.

“It’s typically in quite narrow veins, and it’s visible. You can identify areas in your geology that are susceptible to it.”

Asbestos is a common occurrence in ultramafic geology in Australia, where Scott has had experience.

Management includes sterilising areas of a quarry where there is asbestos. Where detected by observation, e.g. in drilling shavings, operators can avoid blasting in those areas.

If blasting does release asbestos, it can be buried safely or covered by fill or topsoil, so that it is not processed or sold for further use.

“If you have a deposit that you cannot manage, you have no choice other than to close the site,” Scott says.