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Silica dust in the workplace / Pefu silica i nofoaga faigaluega

This guidance advises PCBUs of the risks of respirable crystalline silica dust and how to control them and protect their workers.

O lenei taiala e fautuaina ai PCBUs i lamatiaga o le manavaina o le pefu silica iila (RCS) ma le auala e tau taofiofi ai lenei pefu ma puipui ai a latou tagata faigaluega.

Silicosis is a progressive and deadly disease that causes fibrosis of the lungs from the inhalation of respirable crystalline silica (RCS) dust.

As a PCBU, you have a duty to eliminate, or use controls to minimise worker exposure to the hazard of, and risks from, RCS dust.

O le silicosis, o se faama'i matautia e faasolosolo lava ona afaina ma faamanu'alia (fibrosis) ai māmā mai le mānavaina o le pefu silica iila (RCS).

Ona o oe o se PCBU, e iai lou tiute e te aveesea ai pe faaaogā auala e faaitiitia ai le feagai o tagata faigaluega ma le mata'utia ma lamatiaga mai lenei pefu (RCS).

Respirable crystalline silica dust / O le pefu silica iila e mafai ona mānavaina (RCS)

Silica is a natural substance found in concrete, bricks, rocks, stone (including artificial or engineered stone found in composite kitchen benchtops), sand and clay. RCS dust is created when materials containing silica are cut, ground, drilled, sanded, polished or otherwise disturbed. RCS particles are extremely small; they can't always be seen with the naked eye.

O le silica o se mea ninii e maua mai le simā, o piliki, o papa, o maa (e aofia ai maa e fai (artificial) poo ni maa e gaosi ua faamalō faatasi e fola ai luga o fata o umukuka), oneone ma le 'ele. O le pefu iila RCS e maua pe a iai ni mea (materials) e iai le silica i totonu o loo tipi, ōlo, vili, sanipepa, faalamolemole poo se isi lava tulaga ua ōloia ai. O particles o lenei pefu iila (RCS) e matuā ninii lava; e tele ina lē mafai ona vaaia sa'ō e mata.

How workers can be exposed to RCS dust / Mafai faapefea ona feagai tagata faigaluega ma le pefu iila RCS

Workers in the following industries or who work with the following materials are most at risk of being exposed to RCS dust:

- quarrying
- roading
- foundries
- construction: concrete, stone, bricks, mortar, fibre cement products
- manufacturing of concrete, bricks and tiles
- kitchen benchtop manufacturing (natural and engineered stone), finishing and fitting
- abrasive blasting
- monumental masonry work
- mining
- concrete drilling, cutting, grinding, fettling, mixing, handling, dry shovelling, tunnelling.

O tagata faigaluega i galuega nei poo se tasi e faaaogāina mea nei i le faiga o ana galuega, e matuā lamatia lava i le feagai ai ma le pefu (RCS):

- nofoaga e ta'e, tipi ma vili ai papa poo le maina
- faiga o auala
- fale e gaosi ai u'amea
- fausaga tetele: simā, maa, piliki, mea e fai i le 'ele, pepa simā mo le atoina o fale
- gaosiina o le simā, piliki ma maa fola (tiles)
- gaosiina o fola o fata o umukuka (maa moni ma maa e gaosi), faamae'aina ma le faafetauiina uma o pito
- fanaina o le simā e faalamolemole ai se mea
- galuega mo maa faamanatu
- 'eliina o le maina
- viliina o le simā, tipiina, ōloina, faaleleiina o u'amea, paluina, taulimaina, suaina, eliina o ana i le eleele.

Health effects of exposure to RCS dust / Aafiaga o le soifua maloloina i le feagai ai ma le pefu RCS

Workers may develop the following lung diseases from breathing in RCS dust:

- **Silicosis:** scarring of lung tissue resulting in shortness of breath. May continue to develop even after exposure to RCS dust has stopped. **The effects of silicosis are permanent.** There are three types of silicosis:
 - **acute silicosis:** may occur after exposure of less than a year to very large amounts of RCS dust
 - **accelerated silicosis:** may occur after exposure to large amounts of RCS dust over a shorter period of time, typically 3 to 10 years. Has been seen in workers from the artificial/engineered stone kitchen benchtop industry
 - **chronic silicosis:** typically results from exposure to RCS dust over more than 20 years.
- **Lung cancer:** may occur in workers exposed to high levels of RCS dust over a long period of time.
- **Chronic obstructive pulmonary disease (COPD):** a chronic lung condition that can lead to breathing difficulties such as emphysema in workers exposed to high levels of RCS dust over a long period of time.

There is some evidence that exposure to RCS dust may also cause kidney disease.

E ono afaina tagata faigaluega i faama'i nei o le māmā mai le mānavaina o le pefu RCS:

- **Silicosis:** ua amata ona masaesae le 'afu'afu o le māmā ma iu ai ina tau lē āu le mānava. E ono faaauau pea na aafiaga e ui lava ua lē o toe feagai ma le pefu RCS. **E tumau ona iai aafiaga i māmā.** E tolu ituaiga o silicosis poo aafiaga o māmā:
 - **acute silicosis:** atonu e tupu mai ina ua mavae se taimi pe lei atoa se tausaga sa e iai i se vaipanoa na e feagai ai ma se vaega tele o le pefu RCS

- **accelerated silicosis:** atonu e tupu mai ina ua mavae se vaiitimi puupuu, pe 3 i le 10 tausaga, sa e iai i se vaipanoa na e feagai ai ma se vaega tele o le pefu RCS. E vaaia i tagata e faigaluega i kamupani e gaosi ai maa (artificial/engineered stone) o loo fola ai fata o umukuka
- **chronic silicosis:** e tele ina mafua mai i le feagai ma le pefu RCS mo le sili atu ma le 20 tausaga.
- **Lung cancer:** o le kanesa o le māmā e ono maua ai tagata faigaluega sa umi se vaiitimi o latou feagai ai ma se vaega tele o le pefu RCS.
- **Chronic obstructive pulmonary disease (COPD):** o se tulaga faama'ia faaumiumi o le māmā, e mafai ona iu ai i faafitauli o le faafaigata ona mānava e pei o le emphysema i tagata faigaluega sa feagai i se vaiitimi umi ma se vaega tele o le pefu RCS.

O loo iai ni faamaumauga e faamaonia ai o le feagai ai ma pefu RCS e ono maua ai foi i le faama'i o fatuga'o.

Your responsibilities as a PCBU / Au matafai o oe o se PCBU

As a PCBU, you **must** ensure the health and safety of workers and that others are not put at risk from your work.

Before starting work using artificial/engineered stone, you must complete a risk assessment and review your controls.

You **must** eliminate risks that arise from your work so far as is reasonably practicable.¹

- When deciding how (control measures) to eliminate or minimise risks, you must identify when work tasks may create RCS dust.
- Give preference to effective control measures that protect many workers at the same time.
- Talk to your workers to get their views on which control measures to use.

Ona o se PCBU, e **tatau** ona e faamautinoa le soifua maloloina ma le saogalemu o tagata faigaluega, ma ia aua ne'i lamatia ola o isi mai lau galuega.

A'o le'i amataina galuega e faaaogā ai maa (e lē o ni maa moni/o maa e gaosi), e tatau ona mae'a lelei ona e faia se iloiloga o ni lamatiaga e ono iai ma toe lauliliu mea o le a e faaaogā e tau taofiofi ai.

E **tatau** ona e aveesea ni lamatiaga e tulai mai i lau galuega pe afai e mafai ona faigofie lona galueaina.¹

- Pe afai e filifili pe faapefea (auala e tau taofiofi ai) ona aveesea pe faaititia lamatiaga, e tatau ona e faailoa le taimi e mafai ai e galuega faatino ona maua ai le pefu RCS.
- Faatinoga tāua mo le puleaina fuafuaga talafeagai e puipuia ai le to'atele o tagata faigaluega i lea lava taimi.
- Talanoa i au tagata faigaluega mo so latou manatu poo ā ni auala mo le faatonutonuina e lelei pe a faaaogā.

To eliminate RCS / Ina ia aveesea le pefu RCS

- Use alternative products (eg metallic shot, slag products or grit instead of sand for abrasive blasting).

If you can't eliminate risks, you must **minimise** them so far as is reasonably practicable.

- Faaaogā nisi mea (e pei o metallic shot, slag products poo grit nai lo le oneone e fai ai le palu lea e fana e faalamolemole ai se mea).

Afai e lē mafai ona e aveesea atoatoa lamatiaga, e tatau la ona e **faaititia** pe afai e mafai ona faigofie lona galueaina.

¹ 'So far as is reasonably practicable' means you first consider what is possible in your circumstances to ensure health and safety. You then consider what is reasonable to do in your circumstances. You need to achieve a result that provides the highest protection that is reasonably practicable in the circumstances.

¹ '... pe afai e mafai ona faigofie lona galueaina' o lona uiga e tatau ona e silasila muamua poo a mea e mafai ona faatino i tulaga o loo e iai ina ia mautinoa le soifua maloloina ma le puipuiga. Ona e silasila ai lea poo a mea e talafeagai ona fai i tulaga o loo e iai. E tatau ona e ausia se tulaga e maua ai le puipuiga sili ona maualī ua talafeagai mo le tulaga o loo e iai.

To minimise exposure to RCS dust / Ina ia faaitiitia le feagai ai ma le pefu RCS

Instead of using engineered stone, use materials with a lower silica content. Engineered stone has approximately 90% silica compared with natural stone like marble and limestone which have around 2% silica. For more information about managing risk, see: [worksafe.govt.nz](https://www.worksafe.govt.nz)

Nai lo le faaaogā o maa ia e gaosi (engineered stone), ae faaaogā mea e itiiti le silica o loo iai. O maa e gaosi e tusa ma le 90 pasene le silica pe a faatusa atu i maa faalenatura e pei o le maamora ma papa malo (limestone) e na'ō le 2 pasene o le silica e iai. Mo nisi faamatalaga e faatatau i le taulimaina o lamatiaga, vaai: [worksafe.govt.nz](https://www.worksafe.govt.nz)

WET-WORKING CONTROL MEASURES / FUAFUAGA MO LE PULEAINA O GALUEGA E FAAAOGAINA AI VAI

Freshly exposed silica particle surfaces (created due to grinding, drilling, cutting etc) are more toxic than older weathered particle surfaces. Using water to suppress dust has the added benefit of speeding up the weathering process.

O vaega nini'i o silika fou pito i luga (e mafua mai oloina, viliina, tipiina ma isi) e sili atu matuia le leaga, nai lo vaega nini'i tuai pito i luga ua faamanifiina. O le faaaogaina o le vai e aveese ai le pefu e aoga foi mo le faavaveina ona vaeveina o papa ma maa.

DO	DON'T
Use water spray or misting systems to suppress dust. Keep the work material (eg concrete, engineered stone benchtops) wet while work is carried out on them (eg cutting, polishing, etc). Use on-tool water suppression systems to keep dust out of the air	Dry sweep work areas
Frequently hose down equipment and work areas with water	Use compressed air to blow away dust
FAI	AUA LE FAIA
Faaaoga fagavai poo faiga ia e faapasī solo ai le vai e taofi ai le pefu. Ia faasusū pea mea o loo faia i ai le galuega (e pei o simā, maa mo fola o fata umukuka) a'o faagasolo le galuega mo nei mea (e pei o le tipiina ma le polesiina, ma isi). Ia faaaoga meafaigaluega e iai vai ina ia aveese ai le pefu mai le ea.	Ia salu ma faamamā vaega e faatino ai galuega
Faaaoga le faaga'au e faga ai e le aunoa i le vai meafaigaluega ma vaipanoa o loo fai ai au galuega	Faaaoga le faga ea e feula ese ai le pefu

DUST CONTROL MEASURES / FUAFUAGA MO LE PULEAINA O LE PEFU

- Use physical barriers or computer numerical control (CNC) machines to isolate work areas or tasks that generate dust.
- When purchasing equipment and machinery, look for dust control features and dust collection systems. For example, tools used for cutting, grinding or polishing concrete and masonry should provide water to the blade and/or be fitted with an on-tool extraction system. See: [worksafe.govt.nz](https://www.worksafe.govt.nz)
- Ensure dust-generating equipment has a dust collection system with a filtered air supply to isolate the worker from the dust.
- Use an H-class HEPA-filtered vacuum cleaner in accordance with Standard AS60335-2-69. This includes when working at someone's home (eg to fit a bench). Workers should not use the household vacuum cleaner to remove dust.
- Seal dust waste bags and place them in the correct waste container.
- Faaaogaina puipui malolosi poo masini komepiuta e faatonutonu ai vaega e faaaogaina i galuega ma galuega e ono maua ai le pefu.
- Afai e faatauina ni meafaigaluega ma masini, silasila i fuafuaga e faaitiitia ai pefu ma auala mo le aoina o le pefu. Mo se fa'ataitaiga, o meafaigaluega e faaaoga e tipi ai mea, ōlo ai ma polesi ai sima e tataua ona iai vai mo le naifi ma aofia ai ina ia fetui lelei male meafaigaluega mole puipuiga ole ea. Vaai: [worksafe.govt.nz](https://www.worksafe.govt.nz)
- Ia mautinoa o meafaigaluega ia e maua ai le pefu, ua iai le vaega mo le aoina o le pefu ma ia iai le ea ua fa'amamā ina ia manavaina e tagata faigaluega nai lo le pefu.

- la fa'aaoga le ituaiga o le masini mitipefu (vacuum cleaner) o le H-class HEPA e tusa ma le Standard AS60335-2-69. O le faiga foi lenei pe afai e faigaluega i se fale o se isi (faataitaiga ia ofi i se fata). E le tatau i tagata faigaluega ona fa'aaogaina le vacuum o le fale e aveese ai le pefu.
- la mau lelei le faapipi'iina o taga e faaalu i ai le pefu ma ia sa'o le pusa lapisi e tuu i ai taga.

ADMINISTRATIVE CONTROL MEASURES / FUAFUAGA O LE PUIPUIGA MAI LE PULEGA

- Set up exclusion zones with signs to mark the boundaries of work areas where RCS dust is created. The signs should warn workers about the hazards and specify the PPE to be used.
- Schedule potential high-exposure work for times when there are fewer workers and others around (eg breaks or after normal working hours).
- Seti vaega faasāina ma fai ni faailoga e maka ai le tuaoi o vaega galue e maua ai le pefu RCS. O faailoga nei e tatau ona lapataia ai tagata faigaluega e uiga i vaega mata'utia ma faapatino mai le ituaiga PPE e faaaogā.
- la faatulaga galuega ia e matuā telē le aafia ai i le pefu silica, ina ia fai i taimi e to'aitiiti tagata faigaluega ma isi o loo iai (e pei o taimi e fai ai malologa po'o taimi e mae'a ai itula faigaluega masani).

PERSONAL PROTECTIVE EQUIPMENT (PPE) / O MEAFAIGALUEGA MO LE PUIPUIGA O LE TAGATA LAVA IA (PERSONAL PROTECTIVE EQUIPMENT - PPE)

- **PPE is the least effective control measure. It should not be the first or only control measure you consider.**
- PCBUs must provide PPE to workers unless another PCBU provides it or the worker genuinely and voluntarily chooses to provide their own PPE (and you are satisfied it is suitable).
- Seek expert advice when choosing PPE and consult with the workers who will be using it.
- **O le PPE o se mea ua tau ina maua ai se puipuiga. E lē tatau ona ave ma puipuiga muamua e te tapa i ai pe na'o le pau foi lena o le puipuiga e te tua i ai.**
- E tatau i PCBUs ona latou saunia PPE mo tagata faigaluega vagana o loo saunia ane e se isi PCBU pe o manao moni le tagata faigaluega e saunia e ia lava lana PPE (ma ua faamalieina oe o loo talafeagai).
- Saili ni fautuaga atamai pe afai e filifilia se PPE ma faatalanoa ma tagata faigaluega o le a latou faaaogaina.

Respiratory (breathing) protection / Puipuiga mo le mānava

- A respirator may be half-face, full-face or a Powered Air Purifying Respirator (PAPR) (see pictures below). The type of respirator you choose will depend on the job and the levels of toxicity and concentration of RCS. Always choose a respirator that fully protects the worker, conforms with AS/NZS 1716 and is selected in accordance with Standard AS/NZS 1715.
- Carry out fit testing for each worker who will wear a respirator that requires a seal against the face.
- Provide information, training and instruction so workers can correctly use, wear, store and maintain their PPE.
- E mafai ona maua mea mānava e kava ai na'o le 'afa o foliga, pe kava ai le foliga atoa po'o mea mānava e alu i le eletise (Powered Air Purifying Respirator - PAPR) (silasila i ata i le pito i lalo). O le ituaiga o mea mānava e te filifilia o le a faalagolago i le ituaiga o galuega ma le malosi o le oona ma le tele o le pefu RCS o iai. E tatau lava ona filifilia mea mānava e puipuia atoa ai le tagata faigaluega, o loo mulimulita'i i le AS/NZS 1716 ma ua filifilia e tusa ma le tulaga o le AS/NZS 1715.
- E tatau ona faia se siaki pe o fetau mo le tagata faigaluega le faaaogāina o lenei mea mānava lea o le a faapipii agai i ona foliga.
- Aumaia ni faamatalaga, aoaoga ma faatonuga ina ia faaaoga sa'o, ofuina, teuina ma vaia lele a latou PPE.



FIGURE 1:
Re-usable half-face respirator (cartridge)

FAAILOGA 1:
Mea mánava ua toe faaaoga e kava ai na'ó le 'afa o foliga (iunite)



FIGURE 2:
Full-face respirator (cartridge)

FAAILOGA 2:
Mea mánava e kava atoa le foliga (iunite)



FIGURE 3:
Full-face powered respirator (cartridge)

FAAILOGA 3:
Mea mánava e alu i le eletise e kava atoa le foliga (iunite)

Protective clothing and cleanliness / Lavalava mo le puipuiga ma le tulaga mamā

- Ensure workers have overalls and gloves to wear at work. Workers should leave their dust-covered clothes at work to be cleaned. They should not wear them home.
- Ensure workers understand the importance of washing their hands before eating, drinking and smoking, and of washing up before they go home at the end of the day.
- Ensure washing facilities are provided.
- la mautinoa o loo iai mo tagata faigaluega ni ovalola (ofu soloatoa) ma totinilima e fai i galuega. E tataua i tagata faigaluega ona tu'u o latou ofu ua kava i le pefu, i le galuega e faamamā ai. E le tataua ia i latou ona ofuina ile fale.
- la mautinoa ua malamalama tagata faigaluega i le tāua o le fufuluina o lima ae le'i taumafa, inu pe ulaula. la faamamā lelei a'o le'i o i aiga i le iuga o le aso.
- la mautinoa ua saunia mea e faaaogā mo le faamamāina.

Exposure monitoring / Mata'itūina le aafiaga

Exposure monitoring involves measuring and evaluating workers' exposure to a health hazard. It includes monitoring workplace conditions as well as biological monitoring.

- As a PCBU you **must**, so far as is reasonably practicable, monitor workplace conditions if exposure to a particular health risk warrants it.
- Exposure monitoring will confirm whether workers are exposed to RCS dust at potentially harmful levels and if your control measures are working properly.
- Exposure monitoring does not replace the need for control measures.
- You can engage an occupational hygienist from the New Zealand Occupational Hygiene Society: www.nzohs.org.nz or the Health and Safety Association of New Zealand (HASANZ) Register: <https://register.hasanz.org.nz> to measure RCS dust concentrations and help evaluate risks to worker health.
- Ask your workers for their views when making decisions about exposure monitoring.

O le mata'itūina o le aafiaga e aofia ai le fuaina ma le iloiloina o aafiaga o tagata faigaluega i se mea e lamatia ai le soifua maloloina. E aofia ai le mata'itūina o tulaga o loo iai le falefaigaluega faapea ai ma le mata'itūina o ni aafiaga mai mea tau vailaau (biological monitoring).

- Ona o oe o le PCBU, e **tataua**, pe afai e mafai ona faigofie lona galueaina, ona e mata'itūina tulaga o iai le falefaigaluega pe afai o loo aafia i se mea e lamatia ai le soifua maloloina.
- O le mata'itūina o aafiaga o le a faamautinoa ai pe o aafia tagata faigaluega i le pefu RCS i tulaga e ono tupu ai se faaletonu ma pe o galue lelei fuafuaga mo le puipuiga.
- O le mata'itūina o aafiaga e le mafai ona suia i ai le manaoga i fuafuaga mo le puipuiga.

- E mafai ona outou faaaoga se tagata ua iai tomā faapitoa i le faatāuaina o le tumamā (occupational hygienist) mai le New Zealand Occupational Hygiene Society: www.nzohs.org.nz po’o le Health and Safety Association of New Zealand (HASANZ) Register: <https://register.hasanz.org.nz> e na te fuaina le mafiafia o le pefu RCS ma fesoasoani e iloilo le telē o lamatiaga o iai mo le soifua maloloina o tagata faigaluega.
- Fesili i au tagata faigaluega mo ni o latou manatu pe a faia filifiliga i le mata’itūina o aafiaga i ni mea e lamatia ai.

Health monitoring / Mata’itūina o le soifua maloloina

Health monitoring involves testing workers to identify any changes in their health status because of exposure to hazards arising from their work.

- As a PCBU you must, so far as is reasonably practicable, monitor workers’ health if exposure to a particular health risk warrants it.
- Provide health monitoring for all your workers who may be exposed to RCS dust. You can engage an occupational health practitioner from the New Zealand Occupational Health Nurses’ Association: www.nzohna.org.nz from the HASANZ Register, and/or the Australian and New Zealand Society of Occupational Medicine: <https://anzsom.org.nz> to perform health monitoring.
- Monitoring should include:
 - collection of workers’ demographic, medical and occupational histories
 - records of workers’ exposure
 - a respiratory questionnaire
 - respiratory function tests
 - in some cases, chest x-ray or other radiological procedure.
- You must have workers’ consent before you monitor their health.
- Ask your workers for their views when making decisions about health monitoring.

O le mata’itūina o le soifua maloloina e aofia ai le faia o ni siaki o tagata faigaluega e iloa ai soo se suiga i o latou soifua maloloina ona o aafiaga mai ni mea e lamatia ai e tula’i mai ia latou galuega.

- Ona o oe ose PCBU, e tatau, pe afai e mafai ona faigofie lona galueaina, ona e mata’itūina le soifua maloloina o tagata faigaluega pe afai o aafia i ni mea e ono lamatia ai le soifua maloloina.
- Ia mata’itūina le soifua maloloina o au tagata faigaluega uma o ē e ono aafia i le pefu RCS. E mafai ona outou faaaogā se fomai (occupational health practitioner) mai le New Zealand Occupational Health Nurses’ Association: www.nzohna.org.nz mai le HASANZ Register, ma/poo le Australian and New Zealand Society of Occupational Medicine: <https://anzsom.org.nz> e na te mata’itūina le soifua maloloina.
- O le mata’itūina e tatau ona aofia ai:
 - aoaoina o faamatalaga i le talaaga o le tagata faigaluega, lona tulaga tau soifua maloloina ma lona soifua galue.
 - faamaumauga o aafiaga o tagata faigaluega
 - o fesili e fitoitonu i le mānava
 - o siaki e fitoitonu i le mānava
 - i nisi tulaga, o fā’ata mo le fatafata poo nisi fuafuaga mo faata.
- E tatau ona iai le malilie o tagata faigaluega a’o e le’i mata’itūina lo latou soifua maloloina.
- Fesili i au tagata faigaluega mo ni o latou manatu pe a faia ni filifiliga mo le mata’itūina o le soifua maloloina.

Health monitoring for workers exposed to engineered stone / Le mata'itūina o le soifua maloloina o tagata faigaluega o loo aafia mai le gaosiga o maa

Due to the serious risk of developing accelerated silicosis in those working with engineered stone, an Occupational Medicine Specialist should be engaged to provide health monitoring advice and services.

Talu ai le mata'utia o le lamatiaga o le televave ona tupu o le ma'i o le silicosis i tagata o loo faigaluega i le gaosiga o ma'a, ua tatau ai ona faaogaga se tagata e tomai faapitoa i vaila'au (Occupational Medicine Specialist) e na te saunia fautuaga mo le mata'itūina o le soifua maloloina.

Training / Toleniga/Aoaoga

- As a PCBU you must, so far as is reasonably practicable, ensure workers are supervised or trained to work healthily and safely.
- Provide your workers with information, training and instruction on the control measures (including the use and care of PPE) and the potential health risks of wearing PPE. For more information, see: [worksafe.govt.nz](https://www.worksafe.govt.nz)
- Ask your workers for their views when deciding how to provide information and training.
- Ona o oe o se PCBU, e tatau, pe afai e mafai ona faigofie lona galueaina, ona e faamautinoa o loo mata'itūina ma toleni au tagata faigaluega ina ia galulue i se tulaga e tausia ai le soifua maloloina lelei ma malupuipua.
- Saunia mo au tagata faigaluega faamatalaga, toleniga/aoaoga ma faatonuga i auala e pulea ai (aofia ai le faaogaina ma le tausia o le PPE) ma lamatiaga e ono aafia ai le soifua maloloina mai le faia o le PPE. Mo nisi faamatalaga, tagai i le: [worksafe.govt.nz](https://www.worksafe.govt.nz)
- Fesili i au tagata faigaluega mo ni o latou manatu pe a filifili i le auala e saunia ai faamatalaga ma toleniga/aoaoga.

More information / Mo nisi faamatalaga

Safety alert / Faailo lapatai mo le saogalemu

[Accelerated silicosis](#)

[Televave o le ma'i o le silicosis](#)

Fact sheets / Pepa o faamatalaga

[Controlling dust with on-tool extraction](#)

[Respiratory Protective Equipment - advice for PCBUs](#)

[Workplace Exposure Standards \(WES\)](#)

[HASANZ Register](#)

[NZOHS](#)

[NZOHNA](#)

[ANZSOM](#)

[O Fuafuaga mo Pefu e aofia ai Aveeseina o Meafaigaluega.](#)

[Meafaigaluega o le Puipuiga mai le Mānavaina o le Pefu - fautuaga mo PCBUs](#)

[Tapulaa Faatulagaina o le Malosi o Mea Oona i Falefaigaluega \(Workplace Exposure Standards - WES\)](#)

[HASANZ Register](#)

[NZOHS](#)

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