



Cutting accidents and ill health

EU Social Dialogue Agreement Implementing the Good Practices

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Agreement : 15 Articles

Annex 1 : “Good Practice Guide”

Annex 2 : Dust Monitoring Protocol

Annex 3 : Reporting Format

Annex 4 : List of Research Projects

Annex 5 : Descriptions of Industries

Annex 6 : The Council – Secretariat

Annex 7 : Procedure for the Adaptation of the Good Practices

Annex 8 : Health Surveillance Protocol for Silicosis



Part 1: RCS Essentials

- Preamble and Note to Users
- Introduction
- Silica and the silica industry
- RCS dust and its health effects
- Risk management – What do I need to do?

Risk Assessment
process - aimed
primarily at :-
employers

Part 2: Task Manual

- Introduction
- Task Guidance Sheets

Aimed at both :-
employers
and the
workforce



Covers entire production and use of crystalline silica and materials/products/raw materials containing crystalline silica

This means :-

- **not just what you quarry or process**
- **but what you ‘import’ and process, e.g.:**
 - ***sand***
 - ***hard stone (granite, gritstone, quartzite, dolerite, etc.)***
 - ***cement***

NB: LIMESTONES can contain chert with up to 12% crystalline silica



2 basic questions:

What do you quarry? What is its percentage of ‘free’ crystalline silica?

What do you ‘import’? Sand? Gritstone? Granite? Quartzite? Dolerite?

You need to take account of **all materials**
produced or processed on your site

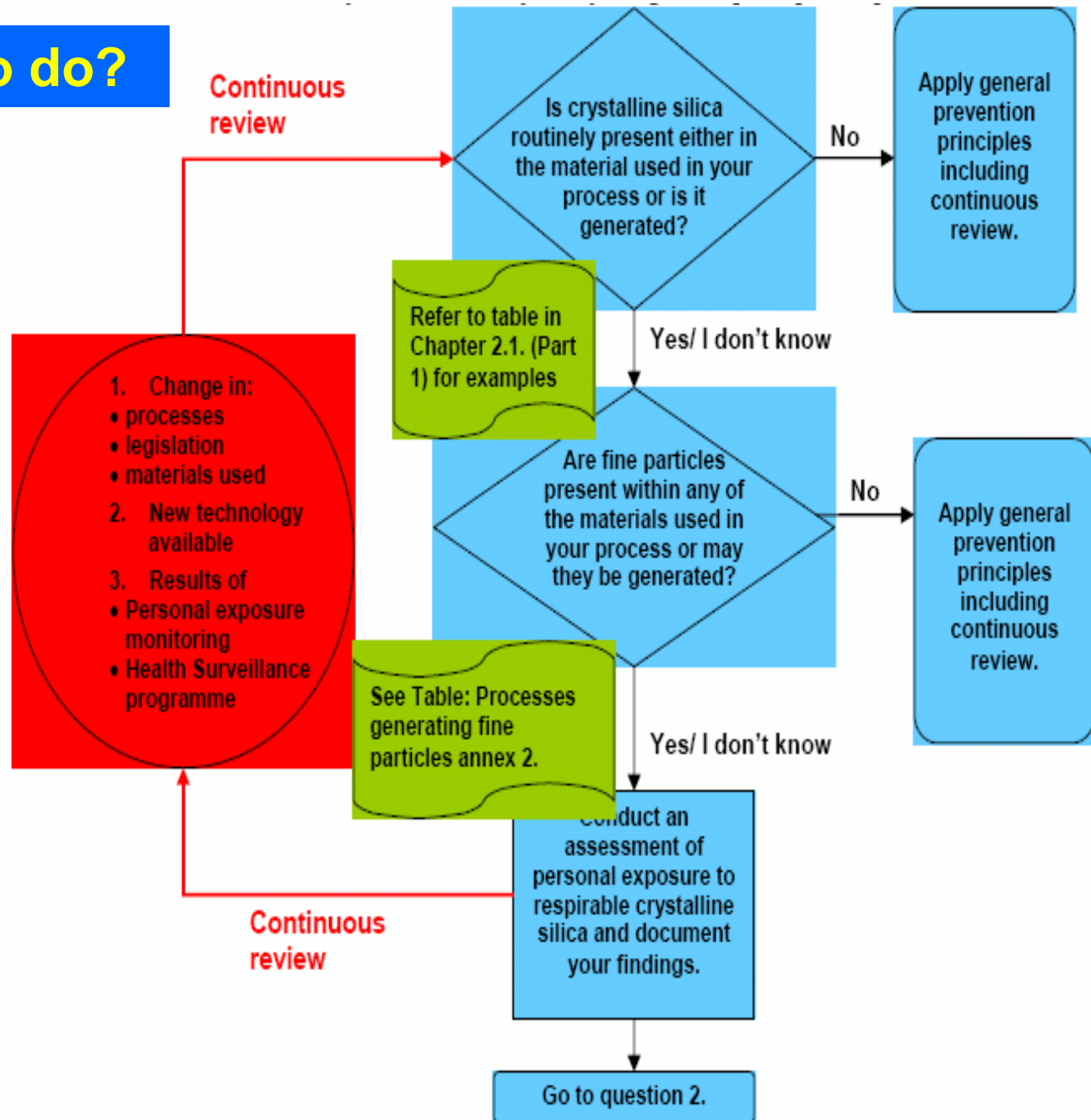
You need to consider the **whole workforce**,
not just those directly employed



What do I need to do?

Question 1 :

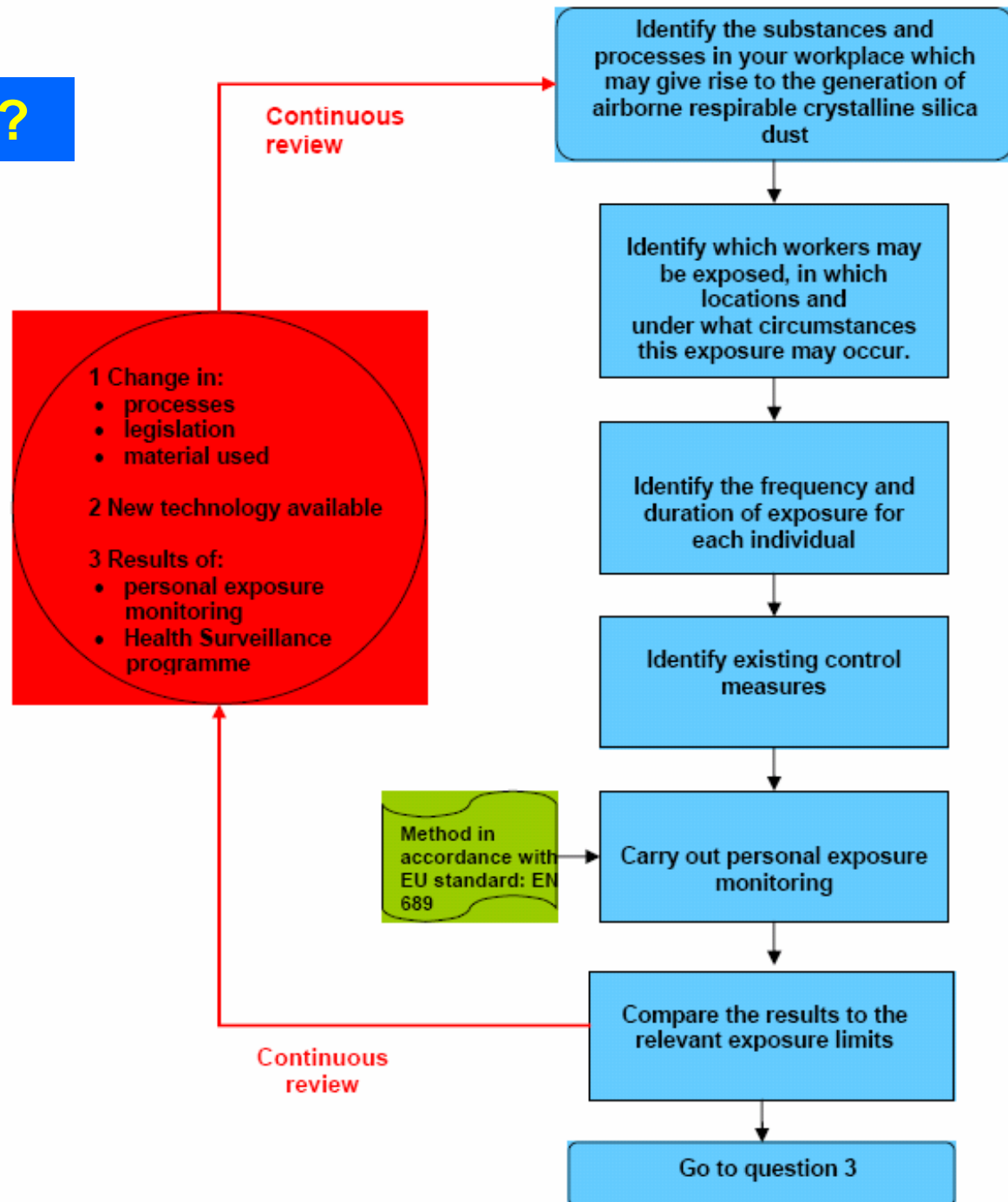
How do I determine whether people are exposed to respirable crystalline silica dust in my workplace?



What do I need to do?

Question 2 :

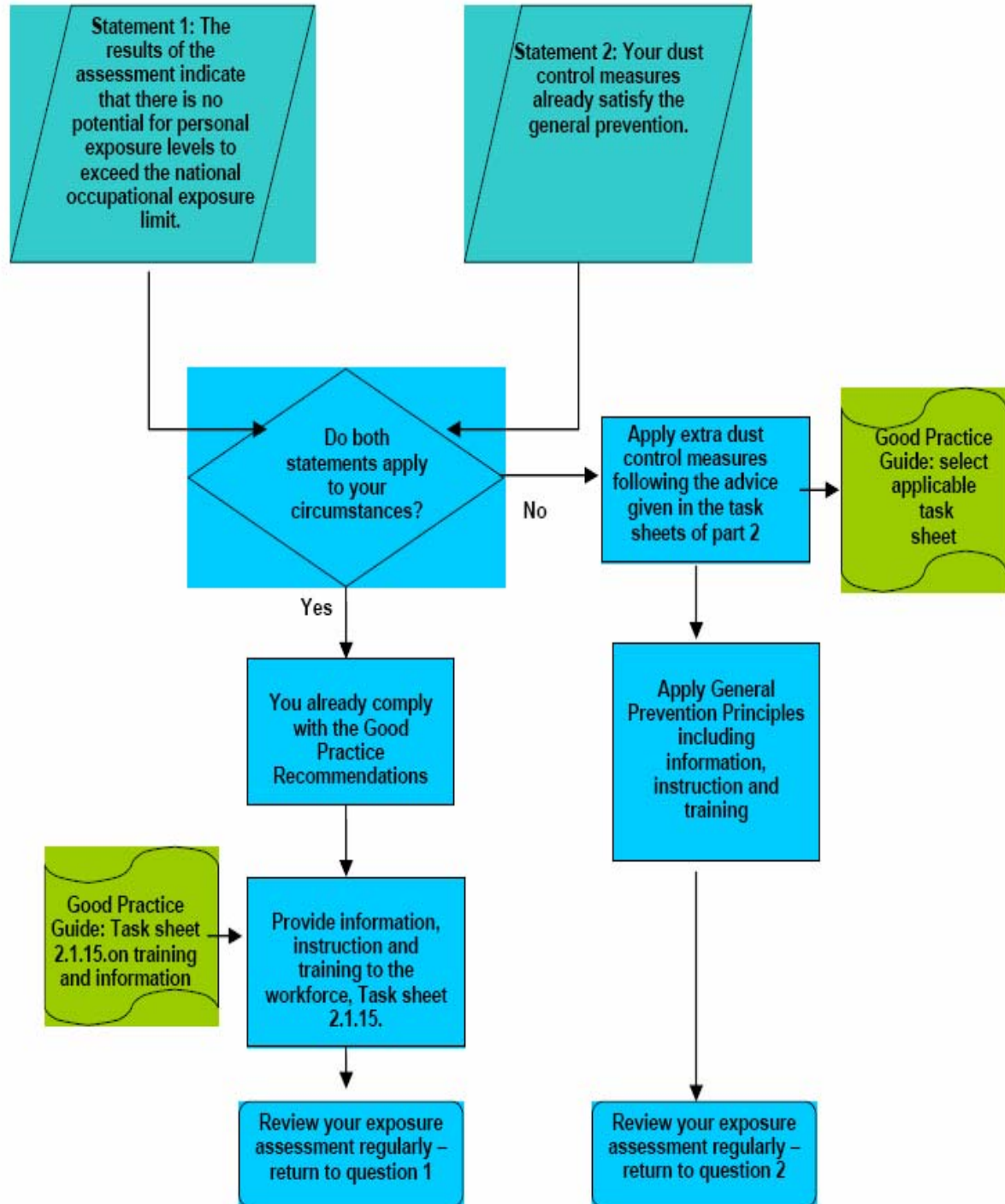
How do I conduct an assessment of personal exposure to respirable crystalline silica dust?



What do I need to do?

Question 3 :

I have done my exposure assessment, but I'm not sure how to interpret the results. What do I need to do now?



Substitution	<i>If economically feasible:</i> Can a dry process be replaced by a wet process? Can a manual process be automated?
Engineering Controls	<i>Dust suppression:</i> Water, steam, mist or fog sprays <i>Dust collection:</i> Cyclones, scrubbers, bag filters
Good Housekeeping	<u>Vacuum</u> clearance of process spillage; keep cab/cabins clean
Work Patterns	Safe working procedures; job rotation
Personal Protective Equipment (PPE)	Not a substitute for good design! Clothing materials; Respiratory Protective Equipment. Check <i>actual levels</i> of protection afforded; Well-fitting? Comfortable? Hygienic?
Training & Education	Provision of adequate training, information and instructions specific to workstation / job



“Silica”
Social
Dialogue
Agreement

Agreement is
▶ bi-partite ◀

Employers

- consult
- inform
- instruct
- train
- involve

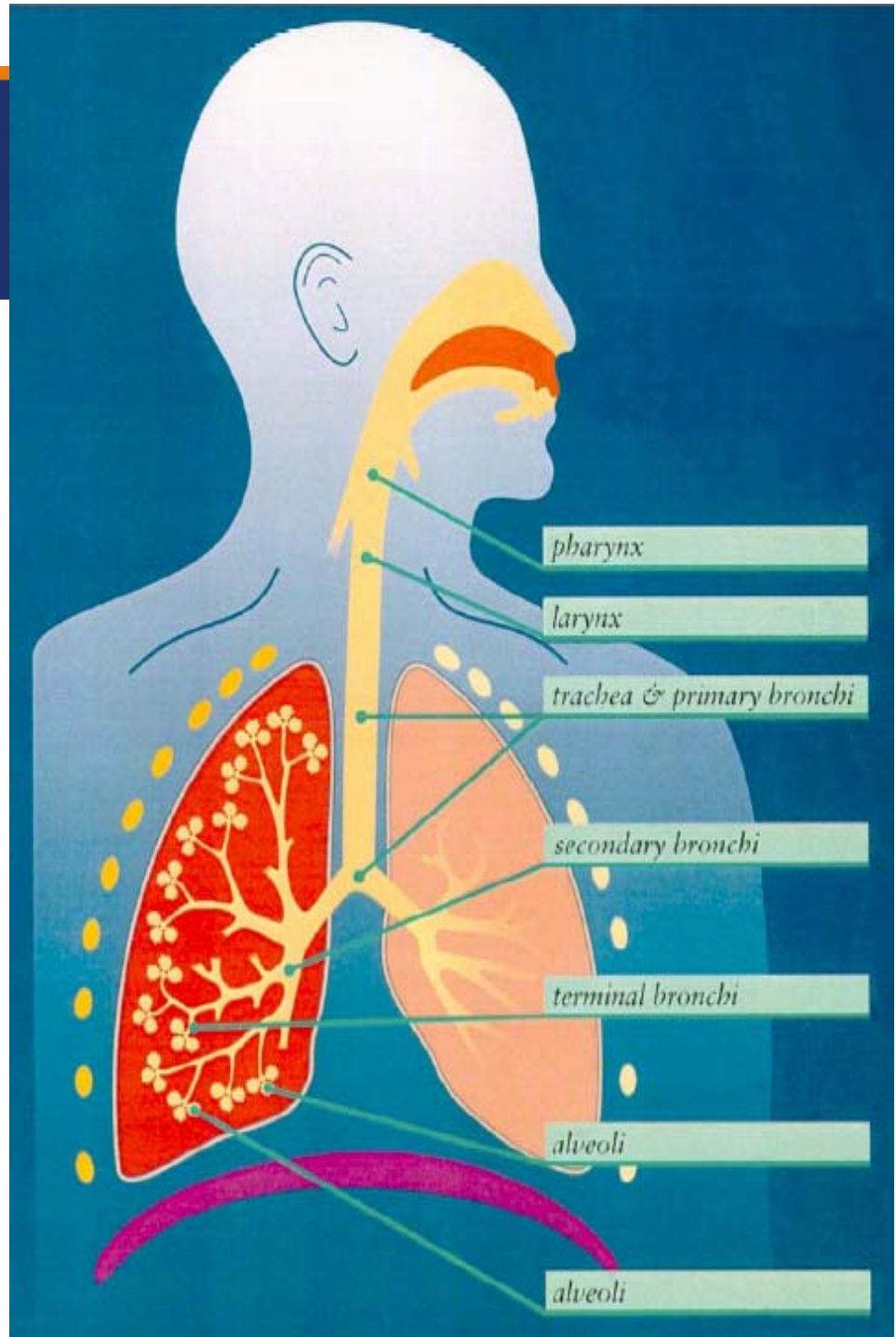
Employees

- co-operate
- participate
- communicate

Where respirable crystalline silica
is airborne

‘Clear’ air ≠ ‘safe’ air

..... the particles are mostly too
small to be seen by the human eye



Typical Task Sheet



Employee
Checklist

2.2.28	Quarry mobile plant - excavation & haulage
	<p>Large quantities of airborne dust may be generated by the operation of mobile plant in quarries. Dust is generated during mineral extraction and loading operations and during movement of vehicles across the quarry floor and on haul roads.</p>
<p>This guidance sheet is aimed at employers to help them comply with the requirements of workplace health and safety legislation, by controlling exposure to respirable crystalline silica.</p> <p>Specifically, this sheet provides advice on the design and use of mobile plant in a quarry. Following the key points of this task sheet will prevent personal exposure to the dust released into the air during quarry mobile plant operations, including excavation and haulage.</p> <p>Depending on the specific circumstances of each case, it may not be necessary to apply all of the control measures identified in this sheet in order to reduce exposure to an acceptable level.</p> <p>This document should also be made available to persons who may be exposed to respirable crystalline silica in the workplace, in order that they may make the best use of the control measures which are implemented.</p> <p>This sheet forms part of the Good Practice Guide on silica dust prevention, which is aimed specifically at the control of personal exposure to respirable crystalline silica dust in the workplace.</p>	<p>Access</p> <ul style="list-style-type: none"> ✓ Restrict access to the work area to authorized personnel only. <p>Design and equipment</p> <ul style="list-style-type: none"> ✓ Little can be done to prevent the generation of airborne dust during activities using mobile plant, so control of exposure relies upon enclosure of the machine operator in an enclosed, sealed cab. ✓ The cab should be equipped with air conditioning or fresh air supply, fitted with an air filter that is designed to withstand a high loading of respirable dust particles. ✓ In order for the air conditioning system or fresh air supply to provide the greatest protection from dust exposure, the doors and windows of the cab must be kept closed at all times while the machine is in operation. This will help to maintain the cab under positive pressure. ✓ Where possible, timing of extraction operations, to coincide with the wetter seasons of the year, will help to reduce airborne dust generation. ✓ In dry weather, use spray mist dust suppression in order to help reduce airborne dust generation. Rippers may be fitted with a mist boom mounted on the ripper/shank mechanism.
	January 2006

<p>Maintenance</p> <ul style="list-style-type: none"> ✓ Maintain the air conditioning system as advised by the supplier, in effective and efficient working order. ✓ The air conditioning filter should be changed each time it is deemed necessary and at least at intervals advised by the manufacturer. <p>Examination and testing</p> <ul style="list-style-type: none"> ✓ Machine drivers must check that the air conditioning system is working within accepted parameters. ✓ Machine operators should check the condition of the filter (usually located behind the driver's seat) as recommended by the manufacturer. ✓ Any faults with the air conditioning/filtration system must be reported as soon as possible so that remedial action can be taken. <p>Cleaning and housekeeping</p> <ul style="list-style-type: none"> ✓ A build up of fine dust on the internal surfaces of the driver's cab might suggest a problem with the air conditioning system. ✓ Preference should be given to the use of vacuum or wet cleaning methods. Avoid using a dry brush when cleaning the internal surfaces of the driver's cab. <p>Personal Protective Equipment</p> <ul style="list-style-type: none"> ✓ Refer to task sheet 2.1.12, Occupational Personal Protective Equipment. ✓ Risk assessment must be carried out to check the effectiveness of control measures. Respiratory protective equipment (with the appropriate protection factor) may need to be worn temporarily in the event control measures fail. ✓ Provide storage facilities to keep personal protective equipment clean when not in use. ✓ Replace respiratory protective equipment at intervals recommended by its suppliers. <p>Training</p> <ul style="list-style-type: none"> ✓ Give your employees information on the health effects associated with respirable crystalline silica dust. ✓ Provide employees with training on: dust exposure prevention; checking controls are working and using them; when and how to use any respiratory protective equipment provided and what to do if something goes wrong. Refer to task sheet 2.1.16 and part 1 of the Good Practice Guide. <p>Supervision</p> <ul style="list-style-type: none"> ✓ Have a system to check that dust control measures are in place and that they are being followed. ✓ Employers should make sure that employees have all the means to perform the checklist, given opposite. 	<p>Employee checklist for making the best use of the controls</p> <ul style="list-style-type: none"> ■ Keep the cab doors and windows closed at all times when the machine is in operation. ■ Monitor the performance of the air conditioning system each time the machine is used. ■ Check the condition of the air filter once a week. ■ Keep records of all safety checks on a daily check sheet. ■ Look for signs of dust build up on the surfaces of the cab. This may be a sign that the air filter is in poor condition. ■ If you think there is a problem with your dust control equipment, ensure additional control measures are taken to reduce exposure to respirable crystalline silica while the problem persists. ■ Keep the interior of the cabin clean. ■ Use, maintain and store any respiratory protective equipment provided in accordance with instructions.
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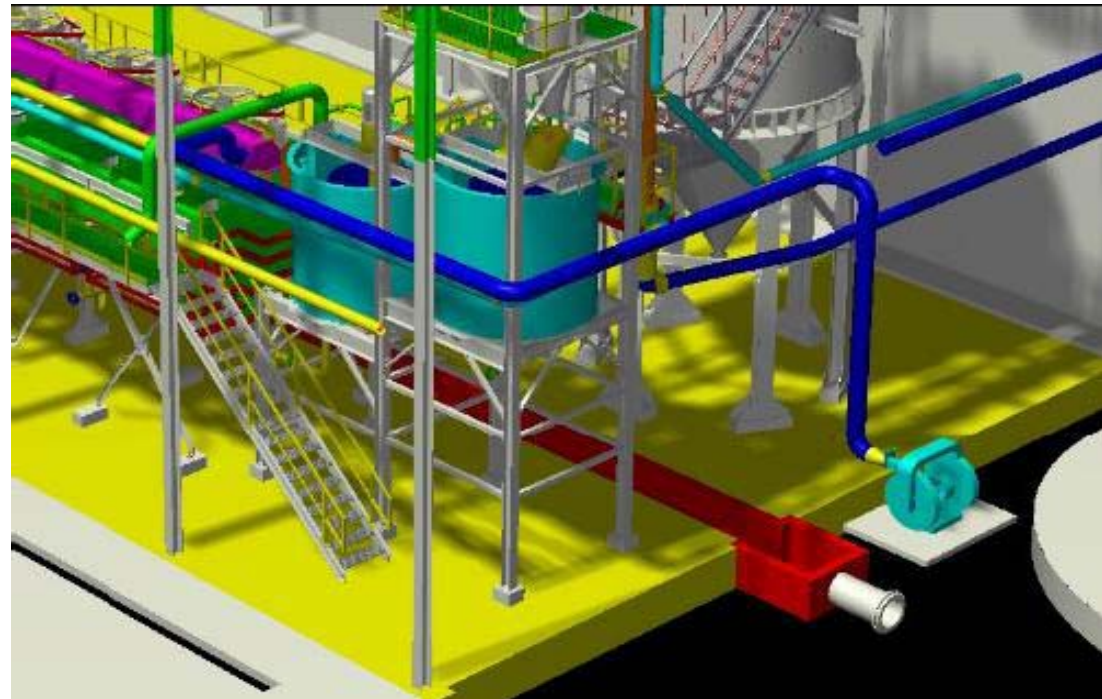
- **Well-defined Job Function** - *‘multi-skilled’ if <50% of time in 1 job*
- **Sampling Duration** - *full shift (7 or 8 hours)*
- **Samples per Job Function** - *minimum 6 (for statistical purposes)*
Lesser number for compliance with national legislation, or prevention
- **Quartz Analysis** - *X-ray Diffraction or Infra-red Spectroscopy*
- **Full Documentation** - *equipment & procedures*
- **Accredited Laboratories** - *for quartz analysis (quality & validity)*
alternative is for labs to join inter-laboratory comparison exercise



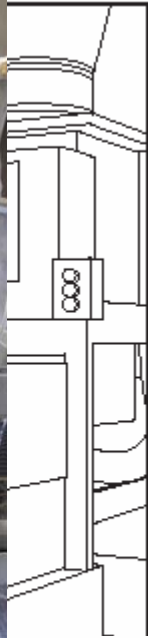
Do you have these on
your site?



‘Plumbed-in’ dust extraction must become
the norm for all new plant designs







“Silica”
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The work starts now!!!



Stand-alone filter



- ✓ **Will provide high level of worker protection whilst avoiding over-restrictive, unrealistic & unnecessary legislation**
- ✓ **Improved public image of a responsible industry**
- ✓ **Confidence of the Trades Unions that the Agreement is sound**
- ✓ **Better relations with :-**
 - **national & local authorities**
 - **investors**
 - **insurance companies**



Need more information?



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Thank you for your attention