GUIDANCE FOR EMPLOYERS ON CONTROLLING EXPOSURE TO RCS IN THE WORKPLACE

GOOD PRACTICES FOR GENERAL VENTILATION

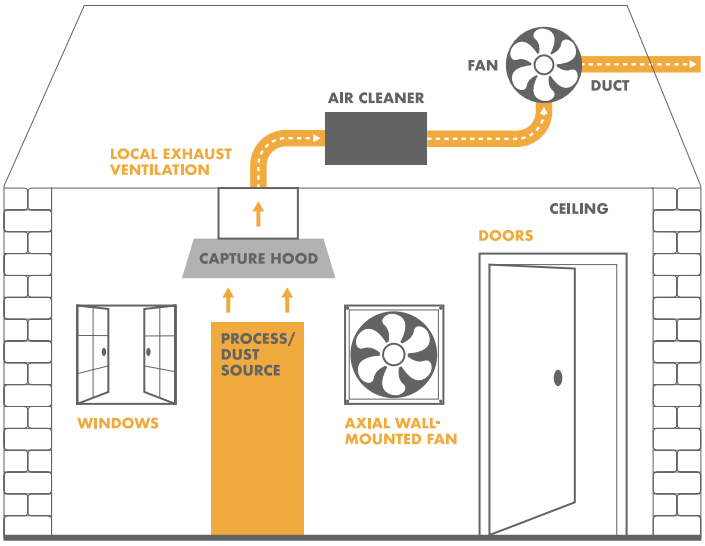
This activity covers design and use of general ventilation in plants where crystalline silica dust is present.

ACCESS

Restrict access to the work area to authorised personnel only.

DESIGN AND EQUIPMENT

- Provide a good standard of general ventilation using natural ventilation from doors and windows, or forced ventilation where air is supplied or removed by a fan.
- Ventilation should ensure the removal of contaminated air and make it up with clean replacement air but without excessive velocity that would disturb and redistribute settled dust.
- Wall mounted fans can be used to extract or supply air. Fans may also be connected to ducting to help focus air supply and removal on specific areas.
- Beware of standing fans as they may disturb and redistribute settled dust and affect the performance of ventilation systems.
- Ensure that supplied or make-up air comes from an uncontaminated area, or ensure that the air is filtered.
- Choose carefully the location at which make-up air enters the building. If people work in the vicinity, it may be necessary to warm the air, or take other measures to protect those individuals, in cold weather.
- Ensure that enough fresh air (minimum 20% of total air flow) is supplied where employees are working to dilute and remove the airborne dust produced.
- Cleaned and filtered air can be reintroduced into the work area where employees are working provided systems are in place to check the condition and performance of the filtration system. Quantities of recirculated air should be in compliance with existing standards and regulations.
- Ensure, where possible, that air comes from a fresh source, flows past the worker and then past the work activity to the extraction point.
- Ensure that natural ventilation does not interfere with the performance of local exhaust ventilation systems by causing draughts.
- The design and specification of ventilation systems may need to be approved under national regulations.



MAINTENANCE

- Ensure equipment used in the task is maintained as advised by the supplier/installer in efficient working order and in good repair.
- Replace consumables (filters etc.) in accordance with the manufacturer's recommendations.

ALL

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EXAMINATION AND TESTING (IF A VENTILATION SYSTEM IS PROVIDED)

- Obtain information on the design performance of the ventilation equipment from the supplier. Keep this information to compare with future test results.
- Visually check the ventilation equipment at least once per week for signs of damage. If it is in constant use, check it more frequently. If used infrequently, then check it before each use.
- Have the ventilation equipment examined and tested against its performance standard, at least once each year.
- Keep records of inspections for a suitable period of time which complies with national laws (minimum five years).
- Put in place measures to control the risk of bacterial growth within water sources used across site, focusing most on systems where water droplets will be generated.

CLEANING AND HOUSEKEEPING

- Clean work area daily. Clean the workroom once a week.
- **DO NOT clean up with a dry brush or using compressed air.**
- Use vacuum or wet cleaning methods.

TRAINING

- 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 guidance sheet **2.3.4** and part 1 of the Good Practice Guide.

SUPERVISION

- Have a system to check that control measures are in place and that they are being followed. Refer to task guidance sheet **2.3.3**.
- Employers should make sure that employees have all the means to perform the checklist given below.

PERSONAL PROTECTIVE EQUIPMENT

- Refer to task guidance sheet **2.1.15** dedicated to Personal Protective Equipment.
- Risk assessment must be carried out to determine whether existing controls are adequate. If necessary, respiratory protective equipment (with the appropriate protection factor) should be provided and worn.
- Provide storage facilities to keep personal protective equipment clean when not in use.
- Replace respiratory protective equipment at intervals recommended by its suppliers.

EMPLOYEE CHECKLIST

- ☐ Make sure the room is well ventilated and any dust extraction system is switched on and is working.
- ☐ Look for signs of damage, wear or poor operation of any equipment used. If you find any problems, tell your supervisor.
- ☐ 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 dust while the problem persists.
- ☐ Do not interfere with ventilation systems – they are provided to protect your working environment.
- ☐ Clean up using vacuum or wet cleaning methods.
- ☐ Use, maintain and store any respiratory protective equipment provided in accordance with instructions.
- ☐ Check and implement measures to control the risk of bacterial growth within water sources used across site, focusing most on systems where water droplets will be generated.

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. Specifically, this sheet provides advice on dust control during the design and use of general ventilation in the workplace.

Following the key points of this task guidance sheet will help reduce exposure.

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 minimise exposure to respirable crystalline silica. i.e. to apply appropriate protection and prevention measures. 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.

This sheet forms part of the Good Practices Guide on silica dust prevention, which is aimed specifically at the control of personal exposure to respirable crystalline silica dust in the workplace.