

GOOD PRACTICES FOR CLEANING OF SURFACES AND INSTALLATIONS

This sheet provides guidance on the cleaning of surfaces and equipment/installations in workplaces where there is handling of crystalline silica containing materials and for the manufacturing of products containing crystalline silica, e.g. breakers, mills, discharger hoppers, conveyor belts, presses, saws...

Cleaning should be carried out in a routine basis, but may also be required in response to a spillage of a substance containing crystalline silica or during maintenance of equipment/installations.

ACCESS

Restrict access to the working area to authorised and trained personnel only. The work area and the equipment/installation should be clearly labelled.

DESIGN AND EQUIPMENT

- Risk assessment has to be done before starting any cleaning process.
- Cleaning instructions for employees shall include recommendations of the supplier/installer of the equipment/installation in e.g. manuals.
- For the cleaning of installations, most cleaning processes are only possible, if the equipment/installation follows the switched-off and secured process (e.g. lock-out, tag-out, try-out). A "permit to work" system may be necessary.

Wet cleaning:

- Dust control can be achieved using wet cleaning methods, which prevent fine dust from becoming airborne by trapping it in water.
- Wet cleaning methods may involve mopping, wet brushing or the use of water sprays or hoses.
- Where water sprays are used, ensure that water supplies are adequate and that they are maintained. Take extra precautions during cold weather to protect against freezing.
- When wetting bulk spillages of fine, dry dusty material it is best to use a fine mist. The use of a jet of water will cause dust to become airborne.
- Where wet cleaning methods are used, electrical installations must be designed with protection against water ingress.
- The provision of appropriate drainage systems is essential when using water sprays and hoses.



Dry cleaning:

- Dust control can be achieved using dry cleaning methods, which involve vacuuming of the dry dust.
- Industrial vacuum cleaners (approved type) may be portable units, equipped with high efficiency particulate filters (HEPA filter) or equivalent technique. Alternatively a building may be equipped with an integrated vacuum cleaning system, with strategically located connections leading to a central dust collector.
- Use industrial vacuum systems designed for the purpose.
- When wet cleaning or vacuum cleaning is not possible and only dry cleaning with brushes or compressed air can be done, ensure that the workers wear appropriate personal protective equipment and ensure that measures are taken to prevent crystalline silica dust from spreading outside the working area e.g. by a local exhaust ventilation (see task guidance sheet **2.1.13**).
- Vacuum cleaning systems are not generally suitable for cleaning up spillages of damp materials. If vacuum cleaning systems will need to deal with large or bulk spillages of powdered material, they should be especially designed to avoid overloading or blocking.

GUIDANCE FOR EMPLOYERS ON CONTROLLING EXPOSURE TO RCS IN THE WORKPLACE

MAINTENANCE

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

EXAMINATION AND TESTING

- Visually check the cleaning equipment for signs of damage at least once per week or, if it is in constant use, check it more frequently. If used infrequently, then check it before each use.
- Have cleaning equipment tested against its performance standard at least once each year.
- Ensure local exhaust ventilation is effective and regularly maintained.
- Keep records of inspections of dust extraction systems for a suitable period of time which complies with national laws (minimum five years).
- Check effectiveness of respiratory protective equipment before use.
- Replace respiratory protective equipment at intervals recommended by its suppliers.
- 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

- In order to prevent dust accumulating, clean your workplace and cleaning equipment on a regular basis.
- Deal with spills immediately. When dealing with bulk spillages of fine, dry, dusty materials, ensure that cleaning work is undertaken following a written safe working procedure and using the information in this task guidance sheet.
- **DO NOT clean up with a dry brush or using compressed air.**
- Use vacuum or wet cleaning method.
- **The use of compressed air for removing dust from work clothes should only be done using specialised and dedicated equipment e.g. air shower cabins. DO NOT use a normal compressed airline on nozzle.**



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.
- Give your employees information and dedicated training on safe working procedures specific to the equipment/installation to be cleaned.

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 on the following page.

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) has to be provided and worn.
- Respiratory protective equipment is mandatory in areas with high exposition to respirable crystalline silica dust.
- Provide storage facilities to keep personal protective equipment clean when not in use.
- When cleaning dry dust, the employer must provide appropriate clothing which avoids dust being absorbed. Your workwear supplier will be able to advise you of appropriate clothing.

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EMPLOYEE CHECKLIST

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| <input type="checkbox"/> For wet cleaning methods, make sure the water supply is working properly before starting the cleaning work. | <input type="checkbox"/> Follow appropriate procedures when emptying vacuum cleaners of dust. | <input type="checkbox"/> 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. | <input type="checkbox"/> Check and implement the measures of controlling the risk of bacterial growth within water sources used across site, focusing most on systems where water droplets will be generated. |
| <input type="checkbox"/> For dry cleaning methods, make sure the vacuum cleaning system is working efficiently. | <input type="checkbox"/> When cleaning up bulk spillages of fine, dry dusty materials, ensure that you work in accordance with your Company's written safe working procedure. | <input type="checkbox"/> Use, maintain and store any personal protective equipment provided in accordance with instructions. | <input type="checkbox"/> Check effectiveness of respiratory protective equipment before use according to your instructions. |
| <input type="checkbox"/> Check the condition of the filters used in vacuum cleaners weekly. Replace them if necessary. | <input type="checkbox"/> Look for signs of damage, wear or poor operation of any equipment used. If you find any problems, tell your supervisor. | | |

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.

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 in the workplace.