

GOOD PRACTICES FOR REMOVING DUST OR SLUDGE FROM AN EXTRACTION UNIT

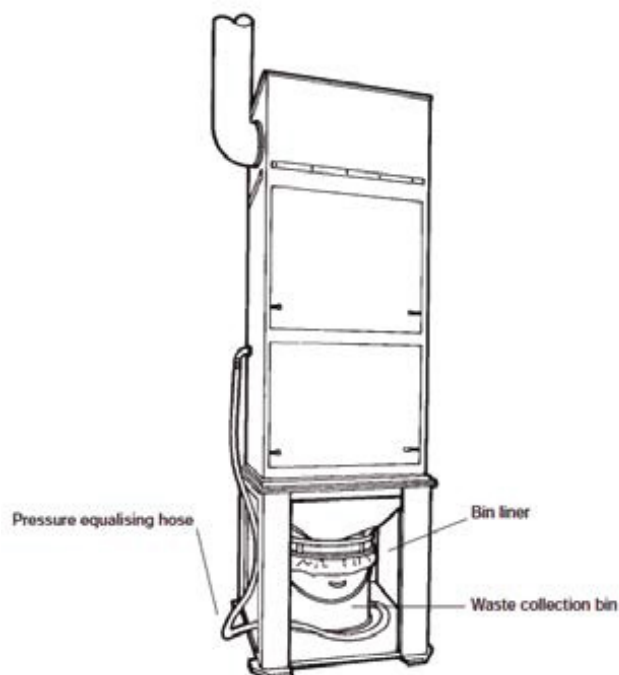
This guidance sheet is to be read in conjunction with the sheets entitled “Design of ducting”, “Design of dust extraction units” and “General ventilation”.

ACCESS

- Restrict access to the work area to authorised personnel only. Place warning signs.
- Provide good access to enable safe removal of possibly hazardous wet or dry wastes.

DESIGN AND EQUIPMENT

- Where possible, the dust extraction should be located away from draughts and the prevailing wind, and outside the working area.
- Consider the need for explosion relief for combustible solids and ensure that equipment is appropriately earthed.
- The design should take the possible abrasiveness of the dust into account.
- Ensure that the collected dust is deposited in a sealed container e.g. a skip or bin. Consider using an inner liner.
- Wet collectors and scrubbers require scraping free of sludge and scale.
- Determine the periodicity required for emptying the waste bin.
- Consider how the bin will be moved for emptying and provide help if necessary.
- If necessary, clean and filtered air can be reintroduced into the work area.
- Quantities of recirculated air should be in compliance with existing standards and regulations.
- The design and specification of extraction systems may need to be approved by national standards and regulations.



©CROWN COPYRIGHT/HSE

MAINTENANCE

- Keep equipment in effective and efficient working order.
- Follow instructions in maintenance manuals and define the PPE necessary during this maintenance.
- Keep airline oil free, water taps empty and filters clean.
- Replace consumables (filters etc.) in accordance with the manufacturer's recommendations.

GUIDANCE FOR EMPLOYERS ON CONTROLLING EXPOSURE TO RCS IN THE WORKPLACE

EXAMINATION AND TESTING

- Check water levels in a wet scrubber reservoir.
- Obtain information on the design performance of the extraction unit from the supplier. Keep this information to compare with future test results.
- Visually check associated ventilation equipment (f.e. compressed airlines) 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 associated ventilation equipment examined and tested against its performance standard, at least once each year.
- Find out the hazardous properties of your baghouse and/or scrubber residues.
- 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 the work area daily.
- Workers should handle the residues carefully- some dry residues may catch fire.
- Ensure the waste bin is emptied regularly and make sure it does not overfill.
- Deal with spills immediately.
- **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 on the following page.



PERSONAL PROTECTIVE EQUIPMENT

- Refer to task guidance sheet **2.1.15** dedicated to Personal Protective Equipment.
- Dusts and sludges can damage the skin and eyes. Ask your safety clothing supplier to help you get the right PPE.
- 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.

Note:

Contains public sector information published by the Health and Safety Executive and licensed under the Open Government Licence

GUIDANCE FOR EMPLOYERS ON CONTROLLING EXPOSURE TO RCS IN THE WORKPLACE

EMPLOYEE CHECKLIST

- | | | | |
|--|---|--|---|
| <input type="checkbox"/> Ensure that you follow your employer's safe working procedure for emptying dust extraction units. Consider electrical isolation and manual handling issues. | <input type="checkbox"/> Empty the waste bin regularly and before it overflows. | <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"/> Use, maintain and store any respiratory protective equipment provided in accordance with instructions. |
| <input type="checkbox"/> Ensure that you follow a working procedure when entering confined spaces. | <input type="checkbox"/> Empty the bin carefully and keep the tipping height as low as possible to avoid creating dust clouds. Be careful if handling dusts or sludges that may catch fire. | <input type="checkbox"/> Clear up spills immediately. | <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"/> It may be necessary for you to wear respiratory protective equipment because this activity can be very dusty. | <input type="checkbox"/> Look for signs of damage, wear or poor operation of any equipment used. If you find any problems, tell your supervisor. | <input type="checkbox"/> Clean up using vacuum or wet cleaning methods. | |

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 safe working procedures for use when removing dust from an extraction unit.

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.