

GOOD PRACTICES FOR MAINTENANCE, SERVICE & REPAIR ACTIVITIES

This sheet provides guidance on activities connected with maintaining, servicing and repairing plant and equipment that may cause the generation of respirable crystalline silica. Creation of new workplaces or installation of new equipment. Refer to task guidance sheet **2.3.5** for advice on working with contractors.

ACCESS

Restrict access to the work area to authorised personnel only. Safety warning signs should be posted to highlight restricted areas where maintenance work is being carried out and where airborne dust levels will be abnormally high.

NATURE OF MAINTENANCE, SERVICE AND REPAIR WORK

It is typical for employees and contractors such as fitters, electricians, patrolmen and labourers, to be employed in the following types of work (non-exhaustive list), these include for example:

- Daily Planned Preventive Maintenance/Service/Repair, e.g. Lubrication, Visual walk through inspections, House keeping.
- Routine Planned Preventive Maintenance/Service/Repair, e.g. change screen decks, filter bags, liner plates and undertake calibrations.
- Breakdowns and Emergencies, e.g. failed drive motors, V-belts, power failure and blockages.

UNDERTAKING THE WORK

When undertaking maintenance, service and repair work, the task needs to be considered in relation to each of the following criteria, so as to minimise the risk of personal exposure to respirable crystalline silica:

- Competence of employees/contractors
- Risk Assessments completed.
- Safe Working Procedures (including permits to work and local rules, if applicable).
- Inductions for contractors.
- Equipment used in the task or work is maintained in efficient working order and suitable for the work in hand.
- Personal protective equipment arrangements.
- Measures for the control of hazardous substances.
- Provision of a monitoring strategy.

- Supervision.
- Decide control measures with workforce consultation.
- Emergency arrangements.
- Waste disposal.



EXAMINATION AND TESTING

- Check effectiveness of respiratory protective equipment before use.
- Keep records of inspections for a suitable period of time which complies with national laws (minimum five years).
- Ensure local exhaust ventilation is effective and regularly tested.
- 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

- Maintain good housekeeping standards.
- Where possible, clean up around work area before start of work.
- **DO NOT clean up with a dry brush or using compressed air.**
- Use vacuum or wet cleaning methods.

GUIDANCE FOR EMPLOYERS ON CONTROLLING EXPOSURE TO RCS IN THE WORKPLACE

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.
- Note that facial hair will reduce the effectiveness of a dust mask. Operators with facial hair should be provided with air fed respirators or similar alternatives.

Note:

Besides the possible exposure to respirable silica dust, other hazards may present a greater danger to maintenance workers and need to be considered prior to commencement of work. These include:

- Work at height
- Moving machinery
- Excessive noise
- Confined spaces
- Welding, burning, cutting & grinding

EMPLOYEE CHECKLIST

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| <input type="checkbox"/> Ensure all plant and equipment isolated from power source before attempting work e.g. electrics, pneumatics, hydraulics, stored energy. | <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"/> Provide belt scrapers to conveyors to minimise spillage. | <input type="checkbox"/> Use, maintain and store any respiratory protective equipment provided in accordance with instructions. |
| <input type="checkbox"/> Make sure enclosed areas are well ventilated and any dust extraction system is switched on and is working. | <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"/> Provide dust containment covers for screens, conveyors and crushers. | <input type="checkbox"/> 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. |
| | | <input type="checkbox"/> Clean up enclosed areas using vacuum or wet cleaning methods. | |
| | | <input type="checkbox"/> Use best available techniques when designing and installing new plant & equipment. | |

This guidance sheet is aimed at employers and contractors to help them comply with the requirements of workplace health and safety legislation, by controlling exposure to respirable crystalline silica in the workplace. Specifically, this sheet provides advice on minimising exposure to respirable silica during maintenance, service, and repairs, including breakdowns.

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

Depending on the specific circumstances of each task or work activity, 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 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.