

GOOD PRACTICES FOR SANDBLASTING IN FACTORIES

This activity relates to sandblasting. The dust generated may contain respirable crystalline silica coming from the sand. This task guidance sheet does not concern sandblasting with materials not containing crystalline silica. This safety sheet is available for a sandblasting line with an enclosed sandblasting equipment. This equipment is fully automatic in normal running (no manual operation during the production).

ACCESS

Restrict access to the work area to authorised personnel only.

DESIGN AND EQUIPMENT

- Ensure the equipment is fit for purpose and that it is well maintained.
- Equipment should be enclosed as far as technically feasible.
- The equipment should be connected to a suitable dust extraction system.
- Ensure all equipment is easily accessible for maintenance work.
- Ensure that equipments are designed in such a way that there is no individual contact with crystalline silica.
- Ensure a pressure gauge is fitted and interlocked with the blasting medium supply.
- You need a high standard of filtration for the air discharged from the booth.
- Discharge filtered air outside the building, away from doors, windows and air inlets.
- Place the booth carefully to make loading and unloading easy.
- Run the booth for two minutes after blasting has ceased to clear the air.

MAINTENANCE

- Maintain the equipment as advised by the suppliers, in efficient working order and good repair.
- Check sand seal system on a daily base and adjust if necessary in accordance to supplier recommendations.
- Follow instructions in maintenance manuals.
- Use a written system of work for maintenance and define the PPE necessary.

- Keep equipment in effective and efficient working order.
- If the extraction system is faulty, stop work until it is repaired.
- Abrasives wear out plant quickly. Plan regular maintenance.
- Put in place measures of controlling the risk of bacterial growth within water sources used across site, focusing most on systems where water droplets will be generated.

EXAMINATION AND TESTING

- Look daily for signs of damage to the ducting, fan and air filter. Noisy or vibrating fans can indicate a problem. Repair damage immediately.
- At least once a week, check that the extraction system and gauge work properly, with no dust leaks.
- You need to know the manufacturer's performance specification to know if extraction is working properly.
- If this information isn't available, hire an engineer competent in ventilation techniques to determine its performance.
- The engineer's report must show the target air speeds.
- Keep this information in your testing logbook.
- Get an engineer competent in ventilation techniques to examine the system thoroughly and test its performance at least once every 12 months or obey the national regulations.
- Keep records of inspections for a suitable period of time which complies with national laws (minimum five years).
- Review records to see if there are failure patterns that make planning maintenance easier.

CLEANING AND HOUSEKEEPING

- Clean the equipment regularly.
- Deal immediately with leakages.
- Deal immediately with spills. 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 sheet.
- Use vacuum or wet cleaning methods.
- **DO NOT clean up with a dry brush or using compressed air.**

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.
- Indicate areas where personal protective equipment must be worn.
- Provide storage facilities to keep personal protective equipment clean when not in use.
- Replace respiratory protective equipment at intervals recommended by its suppliers.
- Risk assessment could be carried out to determine whether existing controls are appropriate.
- **Never use compressed air use for removing dust from clothing.**
- **Workers must not take their coveralls home for washing. Use a contract laundry.**

EMPLOYEE CHECKLIST

- | | | | |
|--|--|--|---|
| <input type="checkbox"/> Make sure that the sandblasting equipment is working properly. | <input type="checkbox"/> Look for signs damage, wear or poor operation of any of the equipment used. If you find any problems, tell your supervisor. | <input type="checkbox"/> Use maintain and store any respiratory protective equipment provided in accordance with instructions. | <input type="checkbox"/> Check and implement the 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"/> Ensure that you follow your employer's safe working procedures. | <input type="checkbox"/> Clean up the equipment regularly. | <input type="checkbox"/> Change work clothes when required | |
| | <input type="checkbox"/> Clean using vacuum or wet cleaning method. | <input type="checkbox"/> Do not interfere with ventilation systems – they are provided to protect your working environment. | |

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 sandblasting.

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.