

# GOOD PRACTICES FOR JUMBO BAGGING

This activity covers bagging operations for big (bulk) bags (500kg-1500kg) containing crystalline silica products, particularly dry materials.

## ACCESS

Restrict access to the work area to authorised personnel only.

## DESIGN AND EQUIPMENT

- Ensure that bags and bag filling equipment are fit for purpose. When bagging flour products, the quality of bag stitching is crucial in preventing the emission of fine dust through the seams of the bags.
- The use of a bag with an inner plastic liner will help to reduce the emission of dust through bag seams.
- Use a bagging head in which the product passes down the centre and in which an annular ring is used for the purposes of dust extraction and for the removal of displaced air.
- The annular ring should be connected to a dust extraction unit (e.g. bag filter).
- Seal the bag collar onto the bagging head to prevent the escape of dust during bag filling. A strip of Velcro, a clamp or an inflatable bladder can be used for this purpose.
- Install bulk bagging equipment in a well-ventilated area. Outdoor installation (in an area protected from the rain) will help to reduce personal exposure to respirable crystalline silica by taking advantage of natural ventilation.
- When bagging flour products, consider the installation of a vibrator in the bagging head, to help loosen material from inside the bagging head prior to removal of each bag.
- When bagging flour products, consider the installation of a vibrating table beneath the bag in order to compact the material and improve stability during subsequent storage and transport.

## 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.



GUIDANCE FOR EMPLOYERS ON CONTROLLING EXPOSURE TO RCS IN THE WORKPLACE

## EXAMINATION AND TESTING

- Visually check the equipment at least once per week for signs of damage or, if it is in constant use, check it more frequently. If used infrequently, then check it before each use.
- Obtain information on the design performance of the dust suppression and/or extraction equipment from the supplier. Keep this information to compare with future test results.
- Have the extraction 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 of controlling 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 your workplace on a regular basis.
- **DO NOT clean up with a dry brush or using compressed air.**
- Use vacuum or wet cleaning methods.
- Store bags in a safe place and dispose of empty bags safely.

## 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

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| <input type="checkbox"/> Make sure that the bagging machine is working properly.   | <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 while the problem persists. | <input type="checkbox"/> Clear up spills straight away. Use vacuum or wet cleaning methods.                                     | <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"/> Make sure the dust extraction system is switched on and that it is working correctly.                                   | <input type="checkbox"/> Make sure that bags are free of faults, especially the loops, inlet and outlet spouts and inner liner if used.   | <input type="checkbox"/> Use, maintain and store any respiratory protective equipment provided in accordance with instructions. |   |
| <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. Specifically, this sheet provides good practice advice on dust control during the jumbo bag filling.

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.