

# GOOD PRACTICES FOR BULK LOADING

This activity covers bulk loading operations for road (except road tankers), rail and water transport of crystalline silica containing materials particularly dry materials.

Task guidance sheet **2.2.3a** offers advice on loading of road tankers.

## ACCESS

Restrict access to the work area to authorised personnel only.

## DESIGN AND EQUIPMENT

- Ensure that all loading equipment is fit for purpose and well maintained.
- Appropriate techniques may include the use of conveyors, screw feeds, grabs, bucket elevators, hoppers, chutes and fill pipes.
- Enclose conveyors, chutes etc. as much as possible.
- Minimise the speed of descent of the material:
  - Minimise falling distances – design chutes etc. so that the material cascades. i.e. several short descents rather than one big one.
  - Install baffles inside long fill pipes.
  - Minimise slope angles in chutes, fill pipes etc.
- **DO NOT load flour products in the open air; enclosed systems must be used.**
- Loading facilities should be sheltered to prevent dust being generated by the wind, whilst also providing a good standard of through-ventilation.
- Control cabins should be well-sealed and have their own clean air supply. Where necessary, they should be equipped with forced air filtration and maintained under positive pressure.
- CCTV systems can be used to reduce the need for operators to visit dusty areas.
- See task guidance sheet **2.2.3a** entitled “Bulk Road Tanker Loading” for advice on loading of road tankers.

## 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.



## 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.
- Obtain information on the design performance of ventilation equipment from the supplier. Keep this information to compare it with future test results.
- 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.
- 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.
- Ensure that transport operators are provided with copies of loading procedures and training as necessary.

## 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.
- Indicate the need for respiratory protective equipment to be worn using appropriate pictogram signs.
- 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 the loading equipment is working properly.  | <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"/> 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 ventilation 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 | <input type="checkbox"/> Use, maintain and store any respiratory protective equipment provided in accordance with instructions. |   |
| <input type="checkbox"/> Wear respiratory protective equipment (e.g. a dust mask) in areas where this has been deemed necessary. | respirable crystalline silica dust while the problem persists.  |   |   |

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 bulk loading operations for road (except road tankers), railway and ship transport.

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.