GOOD PRACTICES FOR BAG EMPTYING – SMALL BAGS

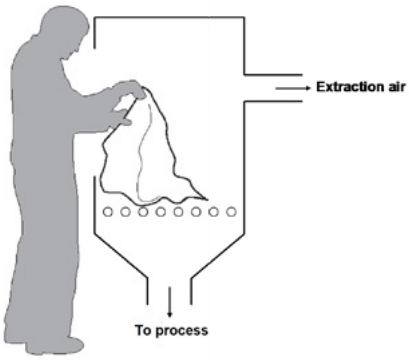
This sheet provides advice on emptying of small bags of products containing crystalline silica in a production unit, particularly those containing dry materials.

ACCESS

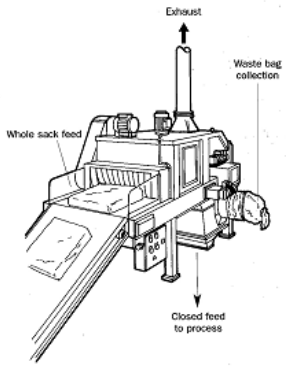
Restrict access to the work area to authorised personnel only.

DESIGN AND EQUIPMENT

- Ensure bag emptying equipment is fit for purpose.
- Enclose the bag emptying equipment as much as possible and keep it under negative pressure by using a local exhaust ventilation system – refer to task guidance sheet **2.1.13**.
- For small bags, the use of automatic or semi-automatic bag dumping stations is recommended for emptying the bags.
- Ensure workers tip the bag contents gently – never dump them. Bags should be emptied with the open end facing away.
- Bag crushing creates a lot of dust. Workers should roll up empty bags within the extraction zone.
- In order to dispose of empty bags without creating dust, drop them into a large plastic sack supported and held open by a metal frame. When it is full, seal the sack and dispose of it in a suitable waste skip. **DO NOT let the waste sack overflow.** Alternatively, use a compactor equipped with a dust extraction system or which is fully enclosed.
- Bag emptying equipment should be connected to a suitable dust arrestment system (e.g. bag filter/cyclone). A permanent dust extraction system is preferred, though a stand-alone mobile unit is acceptable.
- Bag emptying equipment should be designed for easy access to all parts for maintenance, unblocking and cleaning. Access panels should be interlocked or have trip devices where necessary to prevent persons accessing dangerous parts of machinery.
- Consider providing mechanical/pneumatic assistance with bag handling.
- Where possible keep bag emptying equipment away from doors, windows and walkways to prevent draughts affecting the performance of dust extraction systems.
- Provide a clean air supply to the workroom to replace extracted air.



Manual Bag Emptying



Automated Bag Emptying

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 dust suppression and/or extraction equipment from the supplier. Keep this information to compare 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 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 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.

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

- ☐ Make sure the ventilation system is working properly. Make sure the dust extraction system is switched on and is working correctly before starting work.
- ☐ Look for signs of damage, wear or poor operation of any equipment used. If you find any problems, tell your supervisor.
- ☐ 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.
- ☐ Use handling aids when available.
- ☐ Clear up spills straight away. Use vacuum or wet cleaning methods.
- ☐ Clean up work rooms using vacuum or wet cleaning techniques.
- ☐ Use, maintain and store any respiratory protective equipment provided in accordance with instructions.
- ☐ 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.

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 small bag emptying operations.

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.

GOOD PRACTICES FOR BAG EMPTYING – BULK BAGS

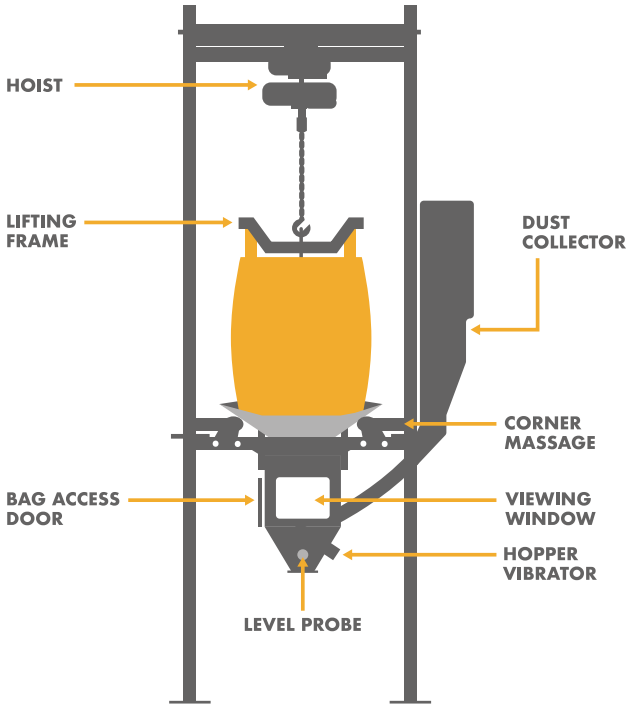
This sheet provides advice on how to empty bulk bags (big bags) of products containing crystalline silica in a production unit, particularly those containing dry materials.

ACCESS

Restrict access to the work area to authorised personnel only.

DESIGN AND EQUIPMENT

- Ensure bag emptying equipment is fit for purpose.
- Enclose the bag emptying equipment as much as possible and keep it under negative pressure by using a local exhaust ventilation system – refer to task guidance sheet **2.1.13**.
- **Manual bag cutting is not recommended without the use of personal protective equipment.**
- For single trip bulk bags without inner liner, use bag emptying equipment featuring pyramidal cutting knives and a rubber membrane to seal off the bag bottom.
- For multiple trip bulk bags, a discharge system with vibrator plate should be used and this should be equipped with local exhaust ventilation.
- Where multiple trip bulk bags are used, which have inner liners, special dust-free outlet connection systems are available which have double ring seals and fully enclosed product discharge.
- In order to dispose of empty bags without creating dust, do not manually compress the empty bags. Instead, drop them into a large plastic sack supported and held open by a metal frame. When it is full, seal the sack and dispose of it in a suitable waste skip. **DO NOT let the waste sack overflow.** Alternatively, use a compactor equipped with a dust extraction system or which is fully enclosed.
- Bag emptying equipment should be connected to a suitable dust arrestment system (e.g. bag filter/cyclone)
- Bag emptying equipment should be designed for easy access to all parts for maintenance, unblocking and cleaning. Access panels should be interlocked or have trip devices where necessary to prevent persons accessing dangerous parts of machinery.
- Consider providing mechanical/pneumatic assistance with bag handling.
- Where possible keep bag emptying equipment away from doors, windows and walkways to prevent draughts affecting the performance of dust extraction systems.
- Provide a clean air supply to the workroom to replace extracted air.



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 dust suppression and/or extraction equipment from the supplier. Keep this information to compare 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 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 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.

SUPERVISION

- Have a system to check that control measures are in place and that they are being followed. Refer to task guidance sheets **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

- ☐ Make sure the ventilation system is working properly. Make sure the dust extraction system is switched on and is working correctly before starting work.
- ☐ Look for signs of damage, wear or poor operation of any equipment used. If you find any problems, tell your supervisor.
- ☐ 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.
- ☐ Use handling aids when available.
- ☐ Clear up spills straight away. Use vacuum or wet cleaning methods.
- ☐ Clean up control rooms using vacuum or wet cleaning techniques.
- ☐ Use, maintain and store any respiratory protective equipment provided in accordance with instructions.
- ☐ 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.

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 bag emptying operations.

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.

GOOD PRACTICES FOR BULK ROAD TANKER UNLOADING (BLOWING OFF)

This activity covers the discharge of silica sand and flour products from a road tanker into a storage silo, particularly dry materials.

ACCESS

Restrict access to the work area to authorised personnel only.

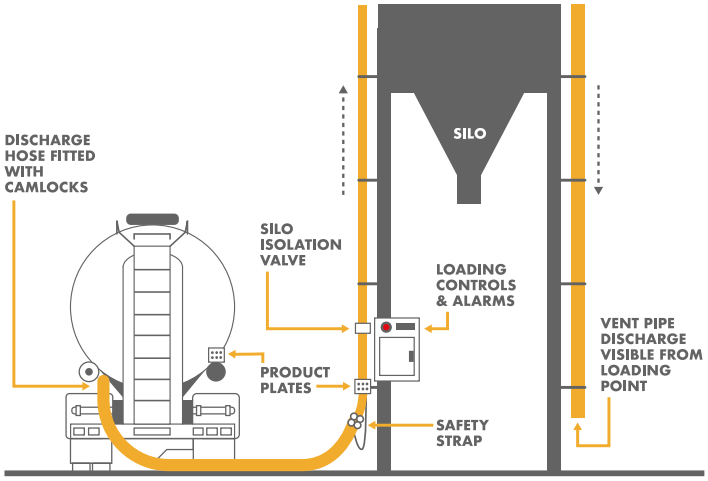
DESIGN AND EQUIPMENT

Road Tanker

- Limit the discharge rate to the design capacity of the receiving silo and dust extraction unit. Offloading pressures should be agreed with the silo operator.
- Tanker offloading pipes, connectors and seals must be designed to withstand the high air pressures and abrasion associated with blowing operations.
- Note that there will be a surge of air pressure as the last sand/flour is blown into a silo. Hence the need for constant supervision of offloading operations.

Customer silo

- Storage silos should be purchased only from reputable suppliers.
- Appropriate engineering design methods should be employed to ensure adequate structural strength.
- Engineering controls must be employed to prevent over-pressurisation of the silo while it is being filled. Ensure that the silos are equipped with pressure relief devices and high level alarms. They must also have dust extraction systems to remove and clean the displaced air.
- Silo dust extraction units must be fitted with filters that are appropriate to the particle size range of the product.
- Offloading pressures should be agreed with the tanker operator.
- Note that flour products have varying bulk density. Put in place procedures to ensure that silos are not overfilled.
- Silos should be equipped with a dust extraction system to prevent the emission of dust from the silo during tanker offloading.



- Pipework and ductwork should be designed to minimise shock losses (caused by bends, constrictions etc.); to minimise dead spots where material may accumulate and to facilitate easy clearing of blockages.
- Silo connection points should be located as close as possible to the delivery tanker parking area. This will eliminate the need for long lengths of flexible hose.
- Safe means of access should be provided to those parts of the silo requiring inspection and maintenance.

MAINTENANCE

- Maintain pipes/hoses, connectors and seals in good condition to reduce the likelihood of dust escaping during blowing operations.
- Dust extraction systems on silos must be maintained in accordance with manufacturers' instructions.

EXAMINATION AND TESTING

- A competent person should test the performance of dust extraction systems at least annually.
- Tanker drivers should check the condition of pipes/hoses and seals daily and obtain replacements as necessary.
- Any faults with the pipes/hoses/connectors and silo dust extraction systems must be reported as soon as possible so that remedial action can be taken.
- 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

- The tanker offloading area should be kept clean and tidy.
- 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.

SUPERVISION

- Ensure procedures are in place to prevent overfilling of silos.
- Have a system to check that dust 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 check the effectiveness of control measures.
- Respiratory protective equipment (with the appropriate protection factor) may need to be worn when disconnecting the offloading pipe at the back of the tanker, when remedying any escape of dust or in the event control measures fail.
- Provide storage facilities to keep personal protective equipment clean when not in use. Replace this equipment at intervals recommended by suppliers.

EMPLOYEE CHECKLIST

- ☐ Tanker drivers must supervise their offloading operations at all times.
- ☐ Agree offloading pressures with the customer.
- ☐ Check the condition of pipes, hoses and connectors daily.
- ☐ Look for signs of damage, wear or poor operation of any equipment used. If you find any problems, tell your supervisor.
- ☐ 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.
- ☐ Clean up spillages of sand and flour immediately, using wet cleaning methods.
- ☐ Wear a dust mask when it is necessary to enter dusty areas in order to rectify any escape of dust, or in the event other control measures fail.
- ☐ Use, maintain and store any respiratory protective equipment provided in accordance with instructions.
- ☐ 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.

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 how to minimise the release of airborne dust when blowing off a road tanker of silica sand or flour.

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.

GOOD PRACTICES FOR BULK UNLOADING

This activity covers bulk unloading operations for road (except road tankers), rail and water transport of crystalline silica containing materials, particularly dry materials. Sheet **2.2.4a** offers advice on unloading of road tankers.

ACCESS

Restrict access to the work area to authorised personnel only.

DESIGN AND EQUIPMENT

- Ensure that all unloading equipment is fit for purpose and well maintained.
- When discharging dry products, install dust extraction systems in areas where dust may be emitted into the workplace air.
- Consider isolating the discharge area and keeping it under negative pressure. Alternatively, provide control rooms which are sealed and kept under positive pressure.
- The truck driver should remain in the cab of the truck during unloading with the doors and windows closed. Where possible, a HEPA filter should be incorporated in the cab's HVAC system.
- Design the size and shape of receiving hoppers so that they are appropriate to the capacity of the road haulage vehicles, rail wagons, grabs etc feeding them.
- Prepare offloading procedures. Ensure that hoppers and discharge areas are clearly labelled with their contents.
- **DO NOT discharge flour products in the open air; enclosed systems must be used.**
- See task guidance sheet **2.2.4a** entitled "Bulk Road Tanker Unloading" for advice on blowing off dry products from 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 dust extraction 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 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 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 delivery drivers are provided with copies of offloading procedures and training on these 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

- ☐ Make sure the unloading equipment is working properly.
- ☐ Make sure the dust extraction system is switched on and is working.
- ☐ Wear respiratory protective equipment (e.g. a dust mask) in areas where this has been deemed necessary.
- ☐ Look for signs of damage, wear or poor operation of any equipment used. If you find any problems, tell your supervisor.
- ☐ 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.
- ☐ Clear up spills straight away. Use vacuum or wet cleaning methods.
- ☐ Use, maintain and store any respiratory protective equipment provided in accordance with instructions.
- ☐ 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.

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 unloading operations.

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.

GOOD PRACTICES FOR CUTTING AND POLISHING CERAMIC AND STONE MATERIALS

This activity relates to the cutting of ceramic materials which may generate large quantities of airborne dust.

ACCESS

Restrict access to the work area to authorised personnel only.

DESIGN AND EQUIPMENT

- Dust control can be achieved by using wet cutting methods, which prevent fine dust from becoming airborne by trapping it in water.
- Ensure that water supplies are adequate and that they are maintained. Take precautions during cold weather against freezing.
- Take precautions to ensure the control of legionella and other biological agents. If the water used for wet cutting is recirculated, ensure that it is checked regularly with respect to pH value and contamination with micro organisms.
- The provision of appropriate drainage systems is essential when using water sprays and hoses.
- Ensure that electrical systems etc. have adequate protection against the hazards present in the working environment, including water and silica dust.
- Use cutting and polishing tools containing no crystalline silica.

MAINTENANCE

- Maintain the equipment as advised by the supplier, in efficient working order and good repair.

EXAMINATION AND TESTING

- Visually check the 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.
- 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 equipment regularly.
- Use vacuum or wet cleaning methods.
- **DO NOT clean up with a dry brush or using compressed air.**
- **DO NOT allow deposits of dust/debris to dry out before cleaning up.**

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.

EMPLOYEE CHECKLIST

- ☐ Ensure that you follow your employer's safe working procedures.
- ☐ Look for signs damage, wear or poor operation of any of the equipment used. If you find any problems, tell your supervisor.
- ☐ Clean up the equipment after use.
- ☐ Clean using vacuum or wet cleaning method.
- ☐ Use, maintain and store any respiratory protective equipment provided in accordance with instructions.
- ☐ 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.

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 the cutting and polishing of refractory materials.

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.

GOOD PRACTICES FOR DRY PRESSING IN CERAMICS

This activity relates to pressing of materials (powders or granulates) containing crystalline silica as a shaping process.

ACCESS

Restrict access to the work area to authorised personnel only.

DESIGN AND EQUIPMENT

- Enclose the materials transfer system and the pressing system as much as possible.
- Provide local exhaust ventilation around the pressing system with an inward airflow of at least 1 m/s at the point where the dust is generated. Refer to task guidance sheet **2.1.13**.
- Consider the need for additional ventilation at the discharge of the pressed parts and transfer points. Ensure air discharges from pneumatic systems do not interfere with the dust control measures.
- Design any enclosure in sections to allow easy access for cleaning and maintenance.
- Prevent material from falling down by using an appropriate device.
- Where possible, locate the work area away from doors, windows and walkways to stop draughts interfering with the ventilation and spreading dust.
- Provide an air supply to the workroom to replace extracted air.
- Keep ducts short and simple.
- **Avoid long sections of flexible duct.**
- Provide an easy way of checking the control is working, e.g. a manometer, pressure gauge or tell-tale (a small flag).
- Discharge extracted air to a safe place away from doors, windows and air inlets.
- You can recirculate cleaned and filtered air into the workroom in quantities recommended by existing standards.

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

- 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.
- Visually check all 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.
- Have the ventilation 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 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 your workplace and equipment on a regular basis.
- Deal with spills immediately.
- Store containers in a safe place and dispose of empty containers safely.
- 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.
- 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 personal protective equipment at intervals recommended by the manufacturer/supplier.

EMPLOYEE CHECKLIST

- ☐ Make sure the ventilation system is switched on and is working.
- ☐ Make sure it is running properly; check the manometer, pressure gauge or tell-tale.
- ☐ Look for signs of damage, wear or poor operation of any equipment used. If you find any problems, tell your supervisor.
- ☐ 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.
- ☐ Make sure that paper bags and other waste material aren't drawn into the ventilation duct.
- ☐ Clear up spills immediately. Use vacuum cleaning or wet cleaning methods. Dispose of spills safely.
- ☐ Do not clean up with a dry brush or using compressed air.
- ☐ Put lids on containers immediately after use.
- ☐ Use, maintain and store any respiratory protective equipment provided in accordance with instructions.
- ☐ 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.

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 pressing materials containing crystalline silica as a shaping process.

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 Document on silica dust prevention, which is aimed specifically at the control of personal exposure to respirable crystalline silica dust in the workplace.

GOOD PRACTICES FOR FINAL TREATMENT (DRY OR WET) IN CERAMICS AND CONCRETE

This activity relates to dry or wet machining operations (e.g. grinding, sawing, drilling) of ceramic products containing crystalline silica.

ACCESS

- Restrict access to the working area to authorised personnel only.
- The work area and equipment should be clearly labelled.
- Traffic ways should be marked.

DESIGN AND EQUIPMENT

- Enclose the machining station as much as possible.
- Provide local exhaust ventilation around the machining station with an inward airflow of typically at least 1 m/s at the point where the dust is generated. Refer to task guidance sheet **2.1.13**.
- Consider the need for additional ventilation at the discharge of the machined parts and transfer points.
- Ensure air discharges from pneumatic systems do not interfere with the dust control measures.
- Design any enclosure in sections to allow easy access for cleaning and maintenance.
- Where possible, locate the work area away from doors, windows and walkways to stop draughts interfering with the ventilation and spreading dust.
- Provide an air supply to the workroom to replace extracted air.
- Keep ducts short and simple.
- **Avoid long sections of flexible duct.**
- Provide an easy way of checking the control is working, e.g. a manometer, pressure gauge or tell-tale (a small flag).
- Discharge extracted air to a safe place away from doors, windows and air inlets.
- You can recirculate clean filtered air into the workroom. Quantities of recirculated air should be in compliance with existing standards.

See for example:
hse.gov.uk/pUbns/priced/hsg258.pdf
publikationen.dguv.de/dguv/pdf/10002/209-084.pdf

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

- Obtain information on the design performance of the ventilation equipment from the supplier. Keep this information to compare with future test results.
- Visually check all 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.
- Have the ventilation 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 to control the risk of bacterial growth within water sources used across site, focusing most on systems where water droplets will be generated.

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CLEANING AND HOUSEKEEPING

- Clean your workplace and equipment on a regular basis.
- Deal with spills immediately.
- 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.
- 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 personal protective equipment at intervals recommended by the manufacturer/supplier.

EMPLOYEE CHECKLIST

- ☐ Make sure the ventilation system is switched on and is working.
- ☐ Make sure it is running properly; check the manometer, pressure gauge or tell-tale.
- ☐ Look for signs of damage, wear or poor operation of any equipment used. If you find any problems, tell your supervisor.
- ☐ 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.
- ☐ Clear up spills immediately. Use vacuum cleaning or wet cleaning methods for solids. Dispose of spills safely.
- ☐ Do not clean up with a dry brush or using compressed air.
- ☐ Use, maintain and store any respiratory protective equipment provided in accordance with instructions.
- ☐ 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.

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 dry or wet machining operations on ceramic products containing crystalline silica.

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 Document on silica dust prevention, which is aimed specifically at the control of personal exposure to respirable crystalline silica dust in the workplace.

GOOD PRACTICES FOR FIRING (BISCUIT, GLAZE, FINAL, DECORATION) IN CERAMICS AND STONES

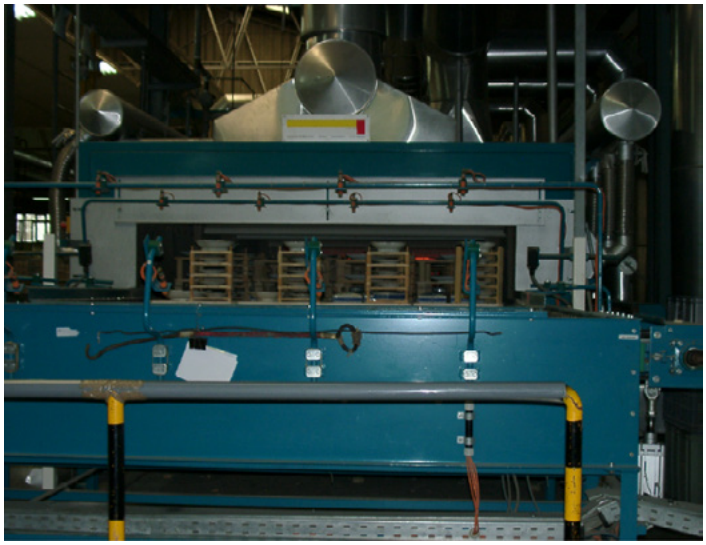
This activity relates to the firing of ceramic products in periodic or continuous kilns.
The measures for biscuit firing, glaze firing, final firing or decoration firing are similar.

ACCESS

Restrict access to the work area to authorised personnel only.

DESIGN AND EQUIPMENT

- Good thermal insulation should be applied.
- Local exhaust ventilation should be applied to the entry and exit points of a continuous kiln or to the door of a periodic kiln (to prevent vapour loss, contamination and dust emissions).
- Exhaust ventilation systems should be easily controllable, interlocked to the kiln heating controls and fitted with warning lights/alarms.
- **When feeding or onloading the kiln, avoid any friction of the products to be fired (design of transportation units).**
- Where possible, locate the work area away from doors, windows and walkways to stop draughts interfering with the ventilation and spreading dust.
- Provide an air supply to the workroom to replace extracted air.
- Provide an easy way of checking the control is working, e.g. a manometer, pressure gauge or tell-tale (a small flag).
- Discharge extracted air to a safe place away from doors, windows and air inlets.
- **Air recirculation is not recommended.**



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.
- Visually check all 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.
- Have the ventilation 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 to control the risk of bacterial growth within water sources used across site, focusing most on systems where water droplets will be generated.

EXAMINATION AND TESTING

- Obtain information on the design performance of the ventilation equipment from the supplier. Keep this information to compare with future test results.

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CLEANING AND HOUSEKEEPING

- Clean your workplace and equipment on a regular basis.
- Deal with spills immediately.
- 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.
- 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 personal protective equipment at intervals recommended by the manufacturer/supplier.

EMPLOYEE CHECKLIST

- ☐ Make sure the ventilation system is switched on and is working.
- ☐ Make sure it is running properly; check the manometer, pressure gauge or tell-tale.
- ☐ Look for signs of damage, wear or poor operation of any equipment used. If you find any problems, tell your supervisor.
- ☐ 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.
- ☐ Remove broken products immediately from feeding units.
- ☐ Clear up spills immediately. Use vacuum cleaning or wet cleaning methods. Dispose of spills safely.
- ☐ Do not clean up with a dry brush or using compressed air.
- ☐ Use, maintain and store any respiratory protective equipment provided in accordance with instructions.
- ☐ 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.

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 firing of ceramic products containing crystalline silica. The firing process can be periodic or continuous.

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 Document on silica dust prevention, which is aimed specifically at the control of personal exposure to respirable crystalline silica dust in the workplace.

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

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

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.

GOOD PRACTICES FOR ISOSTATIC PRESSING (DRY) IN CERAMICS

This activity relates to the isostatic pressing of ceramic products containing crystalline silica. Dust is possible while filling the moulds and when removing them.

ACCESS

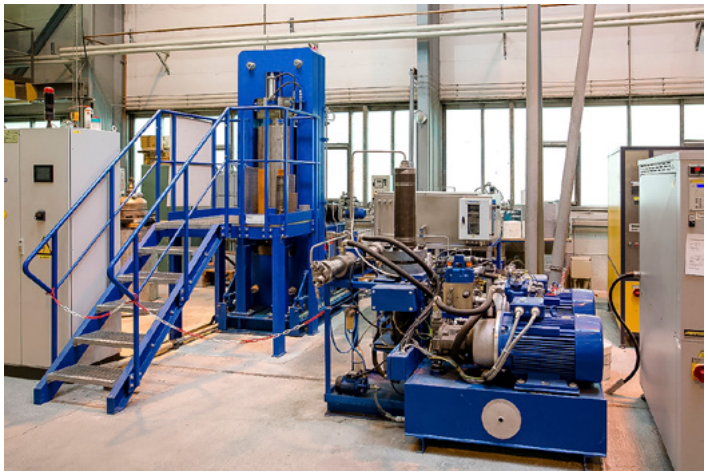
Restrict access to the work area to authorised personnel only.

DESIGN AND EQUIPMENT

- Control raw material spillage. Make sure the right amount of raw material is used for the mould e.g. by providing a gauge.
- Enclose the filling/unforming station as much as possible.
- Make the enclosure deep enough to contain equipment and materials.
- Keep the open area as small as possible – while allowing enough room for safe working. Use see-through panels and plastic strips to reduce the open area.
- The general airflow into the enclosure should typically be at least 0.5 m/s. The airflow towards the hood slots should typically be at least 1 m/s. Refer to task guidance sheet **2.1.13**.
- **DO NOT store items inside the ventilated area; they will obstruct the airflow. Ensure large items do not obstruct the work opening.**
- Where possible, locate the work area away from doors, windows and walkways to stop draughts interfering with the ventilation and spreading dust.
- Provide an air supply to the workroom to replace extracted air.
- Provide an easy way of checking the control is working, e.g. a manometer, pressure gauge or tell-tale (a small flag).
- Discharge extracted air to a safe place away from doors, windows and air inlets.
- You can recirculate cleaned and filtered air into the workroom, in quantities recommended by existing standards.

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.



©TECHNIKUM PROFESSUR FÜR KERAMIK, FEUERFEST UND METALLOKERAMISCHE VERBUNDWERKSTOFFE, TU BERGAKADEMIE FREIBERG

EXAMINATION AND TESTING

- Obtain information on the design performance of the ventilation equipment from the supplier. Keep this information to compare with future test results.
- Visually check all 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.
- Have the ventilation 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 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 your workplace and equipment on a regular basis.
- Deal with spills immediately.
- 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.
- 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 personal protective equipment at intervals recommended by the manufacturer/supplier.

EMPLOYEE CHECKLIST

- ☐ Make sure the ventilation system is switched on and is working.
- ☐ Make sure it is running properly; check the manometer, pressure gauge or tell-tale.
- ☐ Look for signs of damage, wear or poor operation of any equipment used. If you find any problems, tell your supervisor.
- ☐ 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.
- ☐ Make sure that paper bags and other waste material aren't drawn into the ventilation duct.
- ☐ Make sure that large items do not obstruct the working opening.
- ☐ Remove broken products immediately from the work area.
- ☐ Put lids on containers immediately after use.
- ☐ Clear up spills immediately. Use vacuum cleaning or wet cleaning methods for solids. For liquids contain or absorb with granules or mats or wash away with a lot of water. Dispose of spills safely.
- ☐ Do not clean up with a dry brush or using compressed air.
- ☐ Use, maintain and store any respiratory protective equipment provided in accordance with instructions.
- ☐ 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.

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 isostatic pressing of ceramic products containing crystalline silica.

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 Document on silica dust prevention, which is aimed specifically at the control of personal exposure to respirable crystalline silica dust in the workplace.

GOOD PRACTICES FOR MIXING OF MATERIALS

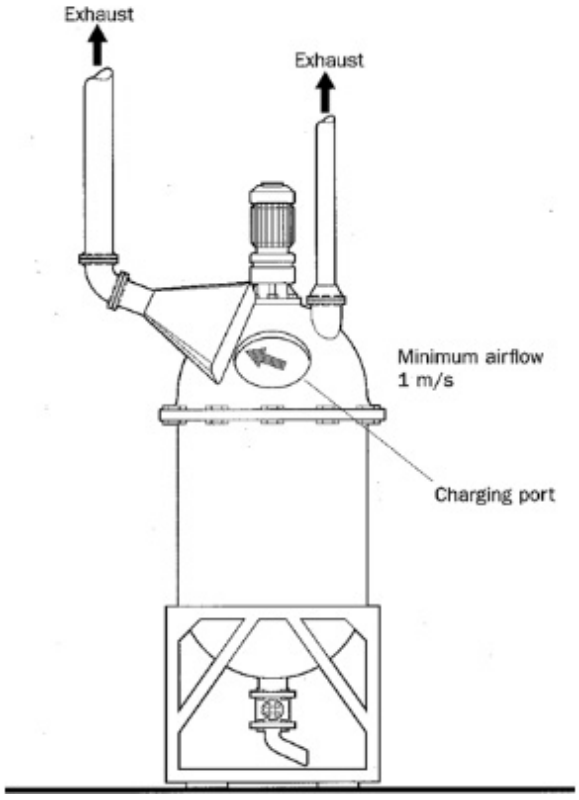
This sheet provides guidance on the design and use of equipment used for the mixing of products containing crystalline silica, particularly dry products.

ACCESS

Restrict access to the work area to authorised personnel only.

DESIGN AND EQUIPMENT

- Ensure that mixers are fit for purpose and that they are well maintained.
- Enclose mixers as much as possible.
- Mixer lids and other access points should be sealed to prevent the escape of dust.
- All covers and access doors must be securely closed before starting the mixer.
- The mixer charging point should be enclosed and provided with local exhaust ventilation.
- Alternatively, local exhaust ventilation can be supplied at points inside the lid or rear of the mixer casing, so that there is a net influx of air through the charging point and into the mixer.
- All extraction systems should be designed so as not to draw excessive amounts of raw material from the mixer.
- When producing a dry mix, consider arrangements for dust-free discharge of mixed products. eg direct discharge to an enclosed conveyor system. Alternatively, provide local exhaust ventilation at the discharge point.
- Local exhaust ventilation systems must be connected to a suitable dust extraction unit.
- Where possible, mixer charging points should be located away from doors, windows and walkways to prevent draughts affecting the performance of local exhaust ventilation systems.
- Provide a clean air supply to the workroom to replace extracted air.



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 dust suppression and/or extraction equipment from the supplier. Keep this information to compare 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 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 your workplace on a regular basis.
- Store containers in a safe place and dispose of empty containers safely.
- Put lids on containers immediately after use.
- 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 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

- ☐ Make sure the work area is well ventilated and that any dust extraction system is switched on and is working correctly.
- ☐ Clear up spills straight away. Use vacuum or wet cleaning methods. Dispose of spills immediately.
- ☐ Look for signs of damage, wear or poor operation of any equipment used. If you find any problems, tell your supervisor.
- ☐ 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.
- ☐ Use, maintain and store any respiratory protective equipment provided in accordance with instructions.
- ☐ 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.

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 dust control when mixing materials containing crystalline silica dust.

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.

GOOD PRACTICES FOR PERIODIC AND CONTINUOUS DRYING

This activity relates to the drying of shaped fine and coarse ceramics made of materials containing crystalline silica.

ACCESS

Restrict access to the work area to authorised personnel only.

DESIGN AND EQUIPMENT

- Good thermal insulation should be applied.
- Air knives should be applied to the entry and exit points to continuous dryers (to prevent vapour loss, contamination and dust emissions).
- Lights/signs should clearly indicate when the dryer is in use.
- Exhaust ventilation systems should be easily controllable, interlocked to the dryer heating controls and fitted with warning lights/alarms. Refer to task guidance sheet **2.1.13**.
- When the dryer is in use, the extraction should be balanced to a minimum level to maintain a slight negative pressure within the dryer.
- **When feeding or onloading the dryer, avoid any friction of the products to be dried (design of transportation units).**
- Where possible, locate the work area away from doors, windows and walkways to stop draughts interfering with the ventilation and spreading dust.
- Provide an air supply to the workroom to replace extracted air.
- Provide an easy way of checking the control is working, e.g. a manometer, pressure gauge or tell-tale (a small flag).
- Discharge extracted air to a safe place away from doors, windows and air inlets.
- **Air recirculation is not recommended.**

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

- Obtain information on the design performance of the ventilation equipment from the supplier. Keep this information to compare with future test results.
- Visually check all 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.
- Have the ventilation 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 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 your workplace and equipment on a regular basis.
- Deal with spills immediately.
- 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.
- 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 personal protective equipment at intervals recommended by the manufacturer/supplier.

EMPLOYEE CHECKLIST

- ☐ Make sure the ventilation system is switched on and is working.
- ☐ Make sure it is running properly; check the manometer, pressure gauge or tell-tale.
- ☐ Look for signs of damage, wear or poor operation of any equipment used. If you find any problems, tell your supervisor.
- ☐ 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.
- ☐ Remove broken products immediately from feeding units.
- ☐ Clear up spills immediately. Use vacuum cleaning or wet cleaning methods. Dispose of spills safely.
- ☐ Do not clean up with a dry brush or using compressed air.
- ☐ Use, maintain and store any respiratory protective equipment provided in accordance with instructions.
- ☐ 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.

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 drying of shaped fine and coarse ceramics made of materials containing crystalline silica. The drying process can be periodic or continuous.

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 Document on silica dust prevention, which is aimed specifically at the control of personal exposure to respirable crystalline silica dust in the workplace.

GOOD PRACTICES FOR PLASTIC SHAPING IN CERAMICS AND CONCRETE

This activity relates to semi dry shaping of materials containing crystalline silica by different kinds of processes e.g. extrusion or pressing.

ACCESS

- Restrict access to the working area to authorised personnel only.
- The work area and equipment should be clearly labelled.

DESIGN AND EQUIPMENT

- Design the feed to the shaping device without the risk of dropping material to the work area.
- Provide conveyor belts to feed back clay chips to recycling.
- Installation should have sufficient free area to allow easy removing of fallen down material.
- Where possible, design surfaces of installations to avoid settling of waste material.
- **Avoid drying of waste material; dispose it before drying in a proper container.**
- Design surfaces of auxiliary devices (e.g. dryer palettes, boards) for an easy dust free cleaning.
- For shaping devices and activities which are relevant concerning dust emission, dust extraction should be provided.

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.

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EXAMINATION AND TESTING

- Obtain information on the design performance of the ventilation equipment from the supplier. Keep this information to compare with future test results.
- Visually check all 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.
- Have the ventilation 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 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 your workplace and equipment on a regular basis.
- Deal with spills immediately.
- Use vacuum or wet cleaning methods.
- **DO NOT clean up with a dry brush orusing 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.
- 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 personal protective equipment at intervals recommended by the manufacturer/supplier.

EMPLOYEE CHECKLIST

- ☐ Make sure the ventilation system is switched on and is working.
- ☐ Make sure it is running properly; check the manometer, pressure gauge or tell-tale.
- ☐ Look for signs of damage, wear or poor operation of any equipment used. If you find any problems, tell your supervisor.
- ☐ 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.
- ☐ Avoid drying of semi wet materials.
- ☐ Clear up spills immediately. Use vacuum cleaning or wet cleaning methods for solids. Dispose of spills safely.
- ☐ Do not clean up with a dry brush or using compressed air.
- ☐ Use, maintain and store any respiratory protective equipment provided in accordance with instructions.
- ☐ 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.

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 plastic shaping of materials containing crystalline silica.

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 Document on silica dust prevention, which is aimed specifically at the control of personal exposure to respirable crystalline silica dust in the workplace.

GOOD PRACTICES FOR PREPARATION IN CERAMICS

This activity relates to semi dry preparation of materials containing crystalline silica by different kinds of processes e.g. crushing in pan mills, circular feeders or roller mills, storage in souring houses, box feeders or silos and mixing of additives.

ACCESS

- Restrict access to the work area to authorised personnel only.
- The work area and equipment should be clearly labelled.

DESIGN AND EQUIPMENT

- Installation should have sufficient traffic paths to allow easy cleaning and maintenance.
- For machines and activities which are relevant concerning dust emission, dust extraction should be provided.
- The mixing in from silos (ashes, slag) should be sufficiently protected by enclosures.
- Where possible provide enclosure of silo discharge and dropping from conveyor belt.
- Design any enclosure in sections to allow easy access for cleaning and maintenance.
- Where possible, locate the work area away from doors, windows and walkways to stop draughts interfering with the ventilation and spreading dust.
- Discharge extracted air to a safe place away from doors, windows and air inlets.
- You can recirculate cleaned and filtered air into the workroom in quantities recommended by existing standards.

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

- Obtain information on the design performance of the ventilation equipment from the supplier. Keep this information to compare with future test results.
- Visually check all 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.
- Have the ventilation 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 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 your workplace and equipment on a regular basis.
- Deal with spills immediately.
- Use vacuum or wet cleaning methods.
- **DO NOT clean up with a dry brush orusing 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.
- 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 personal protective equipment at intervals recommended by the manufacturer/supplier.

EMPLOYEE CHECKLIST

- ☐ Make sure the ventilation system is switched on and is working.
- ☐ Make sure it is running properly; check the manometer, pressure gauge or tell-tale.
- ☐ Look for signs of damage, wear or poor operation of any equipment used. If you find any problems, tell your supervisor.
- ☐ 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.
- ☐ Clear up spills immediately. Use vacuum cleaning or wet cleaning methods for solids. Dispose of spills safely.
- ☐ Use, maintain and store any respiratory protective equipment provided in accordance with instructions.
- ☐ 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.

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 semi dry preparation of materials containing crystalline silica by different kinds of processes.

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 Document on silica dust prevention, which is aimed specifically at the control of personal exposure to respirable crystalline silica dust in the workplace.

GOOD PRACTICES FOR WEIGHING OUT SMALL QUANTITIES

This activity relates to proportioning of small quantities of dry materials containing crystalline silica by manual methods.

ACCESS

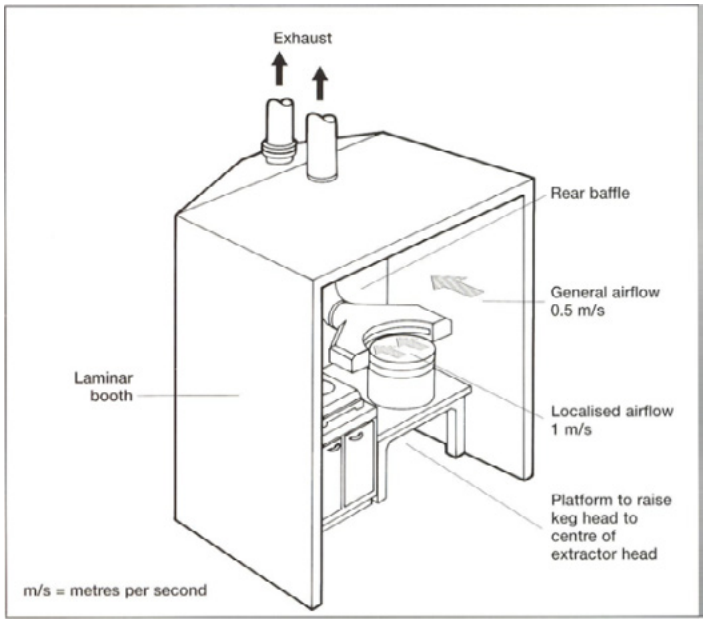
Restrict access to the work area to authorised personnel only.

DESIGN AND EQUIPMENT

- Enclose the weigh station as much as possible (see illustration).
- Make the enclosure deep enough to contain equipment and materials.
- Keep the open area as small as possible – while allowing enough room for safe working. Use see-through panels and plastic strips to reduce the open area.
- The general airflow into the enclosure should typically be at least 0.5 m/s. The airflow towards the hood slots should typically be at least 1 m/s. Refer to task guidance sheet **2.1.13**.
- **Avoid using deep kegs or kegs/bags over 25kg.**
- Where possible, locate the work area away from doors, windows and walkways to stop draughts interfering with the ventilation and spreading dust.
- Provide an air supply to the workroom to replace extracted air.
- Provide an easy way of checking the control is working, e.g. a manometer, pressure gauge or tell-tale (a small flag).
- Discharge extracted air to a safe place away from doors, windows and air inlets.
- You can recirculate cleaned and filtered air into the workroom in quantities recommended by existing standards.

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

- Obtain information on the design performance of the ventilation equipment from the supplier. Keep this information to compare with future test results.
- Visually check all 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.
- Have the ventilation 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 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 your workplace and equipment on a regular basis.
- Deal with spills immediately.
- 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.
- 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 personal protective equipment at intervals recommended by the manufacturer/supplier.

EMPLOYEE CHECKLIST

- ☐ Make sure the ventilation system is switched on and is working.
- ☐ Make sure it is running properly; check the manometer, pressure gauge or tell-tale.
- ☐ Look for signs of damage, wear or poor operation of any equipment used. If you find any problems, tell your supervisor.
- ☐ 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.
- ☐ Make sure that paper bags and other waste material aren't drawn into the ventilation duct.
- ☐ Make sure that large items do not obstruct the working opening.
- ☐ Put lids on containers immediately after use.
- ☐ Clear up spills immediately. Use vacuum cleaning or wet cleaning methods. Dispose of spills safely.
- ☐ Do not clean up with a dry brush or using compressed air.
- ☐ Use, maintain and store any respiratory protective equipment provided in accordance with instructions.
- ☐ 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.

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 proportioning small quantities of materials containing dry crystalline silica by handwork.

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 Document on silica dust prevention, which is aimed specifically at the control of personal exposure to respirable crystalline silica dust in the workplace.

GOOD PRACTICES FOR WEIGHING OUT BULK MATERIALS

This activity relates to proportioning of dry bulk materials containing crystalline silica out of silos or large volume feeders or big bags.

ACCESS

- Restrict access to the working area to authorised personnel only.
- The work area and equipment should be clearly labelled.

DESIGN AND EQUIPMENT

- Ensure dust-tight connections between feed hopper, load cell and receiving container.
- Provide a controlled feeding device between the feed hopper and load cell.
- Provide as much space as possible within the enclosures. This will help contain the dust.
- Consider how to prevent or deal with blockages without breaching the integrity of the closed system, e.g. vibrating pads or pneumatic jets.
- Design the enclosure in sections to allow easy access for cleaning and maintenance.
- **Do not allow entry to a feed hopper to remove a blockage without isolating the equipment, checking the atmosphere for oxygen deficiency and selecting suitable personal protective equipment.**
- Keep the process equipment under negative pressure to prevent leaks.
- Discharge extracted air to a safe place away from doors, windows and air inlets.

MAINTENANCE

- Ensure equipment used in the task is maintained as advised by the supplier/installer in efficient working order and in good repair.
- Adopt a "permit to work" system for maintenance work.
- Replace consumables (filters etc.) in accordance with the manufacturer's recommendations.

EXAMINATION AND TESTING

- Obtain information on the design performance of the ventilation equipment from the supplier. Keep this information to compare with future test results.
- Visually check all 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.
- Have the ventilation 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 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 your workplace and equipment on a regular basis.
- Deal with spills immediately.
- 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.
- 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 personal protective equipment at intervals recommended by the manufacturer/supplier.

EMPLOYEE CHECKLIST

- ☐ Make sure any extraction system is switched on and is working.
- ☐ Look for signs of leaks, wear or damage of any equipment used. If you find any problems, tell your supervisor.
- ☐ 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.
- ☐ Put lids on containers immediately after use.
- ☐ Clear up spills immediately. Use vacuum cleaning or wet cleaning methods. Dispose of spills safely.
- ☐ Do not clean up with a dry brush or using compressed air.
- ☐ Use, maintain and store any respiratory protective equipment provided in accordance with instructions.
- ☐ Follow any special procedures that are needed before the system is opened or entered, e.g. purging and washing.
- ☐ 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.

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 proportioning medium and large quantities of materials containing crystalline silica.

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 Document on silica dust prevention, which is aimed specifically at the control of personal exposure to respirable crystalline silica dust in the workplace.

GOOD PRACTICES FOR SCREENING

This activity covers the dry screening of products containing crystalline silica.

ACCESS

Restrict access to the work area to authorised personnel only.

DESIGN AND EQUIPMENT

- Ensure the dry screening equipment is fit for purpose and that it is well maintained.
- Screens should be enclosed as far as possible.
- Screen enclosures should be connected to a suitable dust extraction system (e.g. bag filter/cyclone/scrubber).
- Flexible hoses should be used to connect screen enclosures to the extraction system. These hoses must be durable (due to the constant motion of the screen) and must be properly sealed onto the screen enclosure. Any gaps will reduce performance of the extraction system and result in dust emissions into the workplace air.
- Transfer points, between screens and conveyors, should be sealed as far as possible and served with dust extraction systems.
- Ensure that screening equipment is designed and installed so as to be easily accessible for maintenance work.
- Control cabins should have their own clean air supply. Where necessary, they should be fitted with forced air filtration and maintained under positive pressure to prevent the ingress of dusty air.
- Screens should be equipped with lifting aids for use when lifting and positioning new screens.

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 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.
- Keep records of inspections for a suitable period of time which complies with national laws (minimum five years).
- Check on a regular basis that extraction ducting and flexible hoses are not obstructed.
- 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 your workplace on a regular basis.
- **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 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

- ☐ Make sure the screening equipment is working properly.
- ☐ Make sure the dust extraction system is switched on and is working correctly.
- ☐ Check that screen enclosures are securely connected to the extraction system and that the flexible hoses are in good condition.
- ☐ Look for signs of damage, wear or poor operation of any equipment used. If you find any problems, tell your supervisor.
- ☐ 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.
- ☐ Use handling aids when available.
- ☐ Clear up spills straight away. Use vacuum or wet cleaning methods.
- ☐ Clean up control rooms using vacuum or wet cleaning methods.
- ☐ Use, maintain and store any respiratory protective equipment provided in accordance with instructions.
- ☐ 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.

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 dust control for dry screening operations.

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.

GOOD PRACTICES FOR SPRAY DRYING IN CERAMICS AND CONCRETE

This activity relates to spray drying of materials containing crystalline silica as a process step to prepare raw materials for shaping.

The preparation of the masses to be spray dried is covered by sheets **2.2.21** and **2.2.24**. The handling of the spray dried powders is covered by sheets **2.2.30 a or b** (depends on particle size).

ACCESS

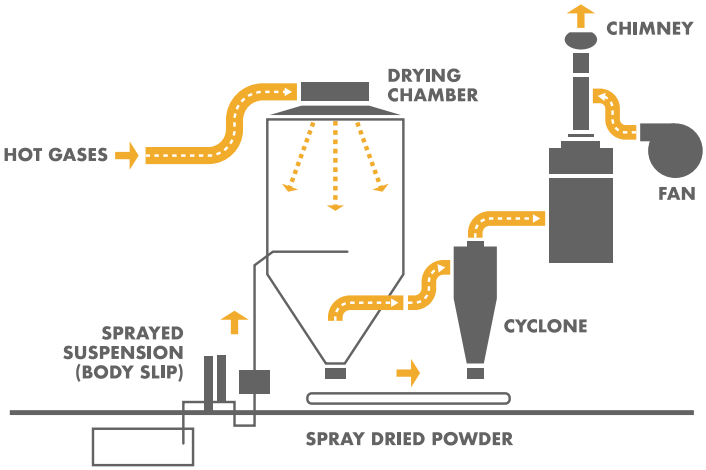
- Restrict access to the work area to authorised personnel only.
- The work area and equipment should be clearly labelled.

DESIGN AND EQUIPMENT

- Design the feed and discharge to and from the drying chamber through pipes rather than a loading door.
- Use discharge containers with lids for spray dried materials.
- Apply good thermal insulation.
- Lights/signs should clearly indicate when the dryer is in use
- Use a heat reclamation and air filtration system in conjunction with the dryer.
- Air throughput should be via a negative pressure fan.
- Consider the need for explosion relief if using direct heating (burners with gas or oil).
- Design closed system to allow easy access for cleaning and maintenance.
- Keep the process equipment under negative pressure to prevent leaks.
- Discharge extracted air to a safe place away from doors, windows and air inlets.

MAINTENANCE

- Ensure equipment used in the task is maintained as advised by the supplier/installer in efficient working order and in good repair.
- Adopt a "permit to work" system for maintenance work.
- Replace consumables (filters etc.) in accordance with the manufacturer's recommendations.



EXAMINATION AND TESTING

- Obtain information on the design performance of the ventilation equipment from the supplier. Keep this information to compare with future test results.
- Visually check all 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.
- Have the ventilation 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).

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CLEANING AND HOUSEKEEPING

- Clean your workplace and equipment on a regular basis.
- Deal with spills immediately.
- 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.
- 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 personal protective equipment at intervals recommended by the manufacturer/supplier.

EMPLOYEE CHECKLIST

- ☐ Before use, check that the seals are intact.
- ☐ Make sure the ventilation system is switched on and is working.
- ☐ Look for signs of leaks, wear or damage of any equipment used. If you find any problems, tell your supervisor.
- ☐ 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.
- ☐ Put lids on containers immediately after use.
- ☐ Clear up spills immediately. Use vacuum cleaning or wet cleaning methods for solids. For liquids, contain or absorb with granules or mats. Dispose of spills safely.
- ☐ Do not clean up with a dry brush or using compressed air.
- ☐ Use, maintain and store any respiratory protective equipment provided in accordance with instructions.
- ☐ Follow any special procedures that are needed before the system is opened or entered, e.g. purging and washing.
- ☐ 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.

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 spray drying medium and large quantities of materials containing crystalline silica.

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 Document on silica dust prevention, which is aimed specifically at the control of personal exposure to respirable crystalline silica dust in the workplace.

GOOD PRACTICES FOR SPRAY GLAZING IN CERAMICS

This activity relates to the automatic or manual spray glazing of ceramic products with glazes containing crystalline silica.

ACCESS

Restrict access to the work area to authorised personnel only.

DESIGN AND EQUIPMENT

- If possible, enclose the work area fully.
- Make the enclosure deep enough to contain equipment and materials.
- The airflow at the face of the enclosure should be at least 1 m/s. Refer to task guidance sheet **2.1.13**.
- Keep the open area as small as possible while allowing enough room for safe working.
- Provide a turntable to make it easier to cover all surfaces and the operator does not need to spray against the airflow.
- **DO NOT store items inside the ventilated area; they will obstruct the airflow. Ensure large items do not obstruct the work opening.**
- Use filters to avoid glaze deposits on electric motors, fan blades and ventilation ducts.
- If possible, provide a water spray system, to absorb overspray of gaze and put it to a reservoir.
- Where possible, locate the work area away from doors, windows and walkways to stop draughts interfering with the ventilation and spreading dust.
- Provide an air supply to the workroom to replace extracted air.
- Provide an easy way of checking the control is working, e.g. a manometer, pressure gauge or tell-tale (a small flag).
- Discharge extracted air to a safe place away from doors, windows and air inlets.
- **Air recirculation is not recommended.**

CER

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

- Obtain information on the design performance of the ventilation equipment from the supplier. Keep this information to compare with future test results.
- Visually check all 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.
- Have the ventilation 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 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 your workplace and equipment on a regular basis.
- Deal with spills immediately.
- Use vacuum or wet cleaning methods.
- **DO NOT clean up with a dry brush or using compressed air.**
- Store containers in a safe place and dispose of empty containers 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 personal protective equipment at intervals recommended by the manufacturer/supplier.

EMPLOYEE CHECKLIST

- ☐ Make sure the ventilation system is switched on and is working.
- ☐ Make sure it is running properly; check the manometer, pressure gauge or tell-tale.
- ☐ Look for signs of damage, wear or poor operation of any equipment used. If you find any problems, tell your supervisor.
- ☐ 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.
- ☐ Make sure that paper bags and other waste material aren't drawn into the ventilation duct.
- ☐ Make sure that large items do not obstruct the working opening.
- ☐ Remove broken products immediately from the work area.
- ☐ Put lids on containers immediately after use.
- ☐ Clear up spills immediately. Use vacuum cleaning or wet cleaning methods for solids. For liquids, contain or absorb with granules or mats or wash away with a lot of water. Dispose of spills safely.
- ☐ Do not clean up with a dry brush or using compressed air.
- ☐ Use, maintain and store any respiratory protective equipment provided in accordance with instructions.
- ☐ 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.

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 spray glazing of ceramic products with glazes containing crystalline silica.

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 Document on silica dust prevention, which is aimed specifically at the control of personal exposure to respirable crystalline silica dust in the workplace.

GOOD PRACTICES FOR TRANSPORT SYSTEMS FOR FINE DRY SILICA PRODUCTS

This activity relates to the design of the transport systems for fine dry silica products.

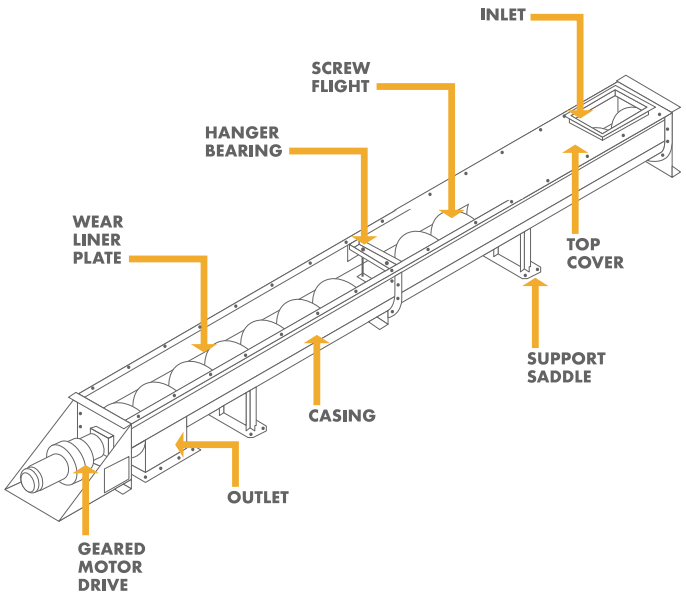
ACCESS

Restrict access to the work area to authorised personnel only.

DESIGN AND EQUIPMENT

- It is preferable to use enclosed handling systems when transporting silica flour.
- **Pneumatic systems** are appropriate for both horizontal and vertical transport of silica flour.
- For horizontal transport in **pneumatic systems**, pipes should be angled downwards where possible to prevent flour settling in the pipes and causing a blockage in the event system pressure is lost.
- The pipe work in **pneumatic systems** should be designed to minimise unnecessary obstacles and to minimise sharp bends. Pipe connections should be properly sealed.
- For **air slides**, the fluidising air will be drawn away by the dust extraction system. For this reason, air slides cannot be used if the product is too fine. If the surface area is more than 10,000 cm^2/g, use screw conveyors. More than one de-dusting connection may be required on long lengths in order to correctly balance airflows.
- **Air slides** should be inclined slightly in order to assist the horizontal transport of silica flour. The quality of the cloth used in air slides should be selected to avoid excessive pressure loss for the fan, whilst also preventing silica flour from falling through the cloth and causing it to become blocked.
- For **screw conveyors**, the screw must be enclosed. Specialist design is required due to the abrasive properties of silica flour (contact an experienced supplier).
- **Screw conveyors** may need to be equipped with dust extraction systems unless they are connected to equipment that already operates under negative pressure. Refer to task guidance sheet **2.1.13**.

- **Conveyor belts are not suitable for the transportation of loose silica flour.** However, they may be used for the transport of other, coarser, materials and in machinery that handles bags of silica flour. Conveyors handling bags of silica flour, or other dusty materials, should be enclosed and equipped with dust extraction.
- **Elevators** are suitable for vertical transport, provided they are fully enclosed. Dust extraction systems may be required unless elevators are connected to equipment that already operates under negative pressure.
- It may be necessary to apply fluidising air at the base of **silos** holding silica flour. Such systems should be designed so that the fluidising air is only applied at times when it is necessary to make the silica flour flow out of the silo. Fluidising air should not be left switched on permanently in situations where the air could migrate and cause silica flour to be emitted under pressure from elsewhere in the system.



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 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.
- 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

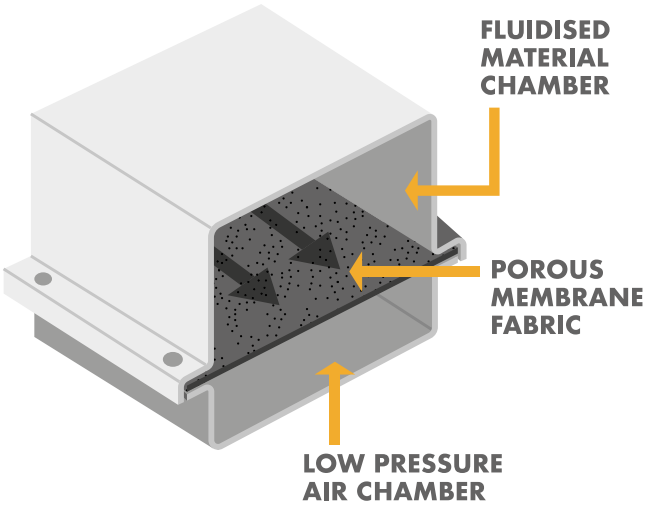
- Clean your workplace on a regular basis.
- **DO NOT clean up with a dry brush orusing compressed air.**
- Use vacuum or wet cleaning methods.

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.
- Provide pictograms on doors to indicate areas where respiratory protective equipment must be worn.
- Provide storage facilities to keep personal protective equipment clean when not in use.
- Provide enough places where Personal protective equipment can be found (e.g. box with disposable dust masks). Indicate those places with pictograms.

EMPLOYEE CHECKLIST

- ☐ Look for signs of damage or wear of building parts and of your work equipment. If you find any problems, tell your supervisor.
- ☐ Problems with silica flour transportation systems may be indicated by emissions of dust into the workplace air and by the appearance of piles of silica flour on floors and surfaces. Report any of these to your supervisor.
- ☐ 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.
- ☐ Clear up spills straight away. Use vacuum cleaning or wet mopping. Dispose of spills safely.
- ☐ Clean up control cabins using vacuum or wet cleaning methods.
- ☐ Use, maintain and store any respiratory protective equipment provided in accordance with instructions.
- ☐ 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.

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 the design of transport systems for silica flour products.

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.

GOOD PRACTICES FOR WATER ASSISTED DUST SUPPRESSION

This activity relates to the use of water flooding and of atomised water mists to suppress the generation and lower the concentration of airborne crystalline silica dusts.

ACCESS

Restrict access to the work area to authorised personnel only.

DESIGN AND EQUIPMENT

- If possible, use water fed tools for cutting, grinding and shaping crystalline silica containing products.
- Consider the application of water sprays or trickles to working surfaces when water fed tools are not available.
- In circumstances where there will be no adverse impact on process conditions, product quality or health and safety, apply water mists in work areas where airborne crystalline silica may be generated by material and product handling.
- Ensure electrical systems have adequate protection when used with water flooding, spraying or misting.
- Take precautions to ensure the control of legionella and other biological agents in water storage and delivery systems.
- Take precautions to ensure that wastewater and sludges are disposed according to appropriate prescriptions.

MAINTENANCE

- Ensure water dust suppression equipment used in the task is maintained as advised by the supplier/installer in efficient working order and good repair.
- Replace consumables in accordance with the manufacturer's recommendations.

EXAMINATION AND TESTING

- Visually check all 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 dust suppression equipment from the supplier. Keep this information to compare 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 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 water dust suppression equipment as instructed by the manufacturer/supplier.
- **Avoid accumulation of slurries/sludges.**
- Ensure spills are cleaned up immediately, and provide adequate spill control equipment.
- **DO NOT allow collected slurries/sludges to dry out and the dust to become airborne.**

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 areas where personal protective equipment must be used. 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 personal protective equipment at intervals recommended by the manufacturer/supplier.

EMPLOYEE CHECKLIST

- ☐ Make sure that water dust suppression equipment is working properly.
- ☐ Ensure water supplies are adequate with an uninterrupted supply during use for dust suppression.
- ☐ Protect water supplies against freezing.
- ☐ Look for signs of damage or malfunction, and if you find any tell your supervisor immediately.
- ☐ Clean up spills immediately.
- ☐ Clean dust suppression equipment regularly and after use.
- ☐ Keep personal protective equipment clean and properly stored.
- ☐ 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.

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 by using water flooding and atomised water mists.

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 Document on silica dust prevention, which is aimed specifically at the control of personal exposure to respirable crystalline silica dust in the workplace.