

# G102

# Open bulk storage of solids

## COSHH essentials



The Control of Substances Hazardous to Health Regulations 2002 (COSHH) require employers to ensure that exposure is prevented or, where this is not reasonably practicable, adequately controlled. This guidance gives practical advice on how this can be achieved by applying the principles of good practice for the control of exposure to substances hazardous to health, as required by COSHH.

It is aimed at people whose responsibilities include the management of substances hazardous to health at work (eg occupational health specialists, anyone undertaking COSHH assessments, supervisors and is also useful for trade union and employee safety representatives). It will help you carry out COSHH assessments, review existing assessments, deliver training and supervise activities involving substances hazardous to health.

This guidance is issued by the Health and Safety Executive. Following the guidance is not compulsory, unless specifically stated, and you are free to take other action. But if you do follow the guidance you will normally be doing enough to comply with the law. Health and safety inspectors seek to secure compliance with the law and may refer to this guidance.

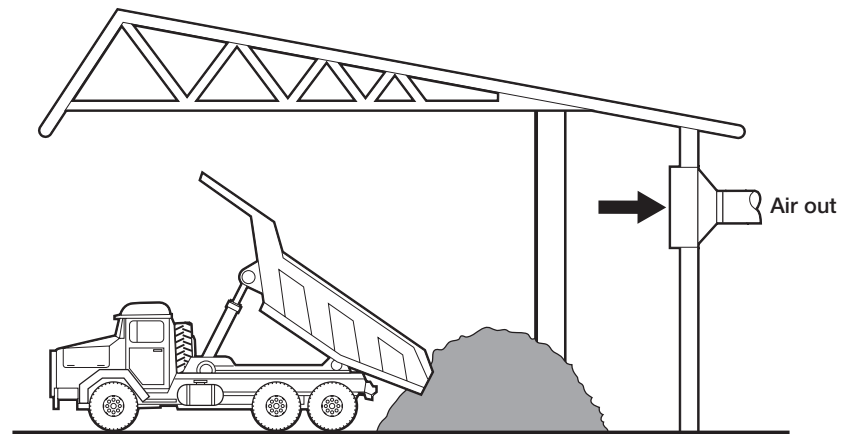
See Essential information near the end of the sheet.

## Control approach 1 General ventilation

### What this sheet covers

This sheet describes good control practice for open bulk storage of solids.

It covers the key points you need to follow to reduce exposure to an adequate level. Follow all the points, or use equally effective measures.



### Access to work area

- ✓ Allow access to authorised and appropriately trained people only.

### Equipment and procedures

- ✓ Position an air extraction system as close as possible to the source of the dust and vehicle fumes (see illustration).
- ✓ Never allow warehouse openings that face into the prevailing wind.
- ✓ Define a specific area for storage and put up signs.
- ✓ Clearly segregate different stockpiles.
- ✓ Keep easily ignitable materials, such as empty packaging, in a separate store room and minimise quantities stored.
- ✓ Provide partitions to stop dust spreading through the building.
- ✓ Provide tarpaulins or plastic covers for stockpiles not in use.
- ✓ Consider wetting the material to reduce dust.

### Respiratory protective equipment (RPE)

- ✓ RPE is normally not needed.
- ✓ RPE may be needed for some cleaning and maintenance activities, eg dealing with spills.

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### Personal protective equipment (PPE)

- ✓ Chemicals identified by COSHH Essentials as **hazard group S** can damage the skin and eyes, or enter the body through the skin and cause harm. Check the safety data sheets to see what PPE is needed.
- ✓ Ask your supplier to advise on suitable protective equipment.
- ✓ Make suitable arrangements for maintenance, storage and replacement of PPE.

### Personal decontamination

- ✓ Provide warm water, mild skin cleansers, and soft paper or fabric towels for drying. Avoid abrasive cleansers.
- ✓ Provide pre-work skin creams, which will make it easier to wash dirt from the skin.
- ✓ Provide after-work creams to replace skin oils.

**Caution:** 'Barrier creams' are not 'liquid gloves' and they do not provide a full barrier.

### Maintenance, examination and testing

- ✓ Keep all equipment used for the task in effective working order. Maintain it as advised by the supplier or installer.
- ✓ Follow any special procedures before any systems are opened or entered, eg purging or cleaning. Don't forget you may need PPE for some maintenance tasks.
- ✓ Visually check all equipment at least once a week for signs of damage or faults.

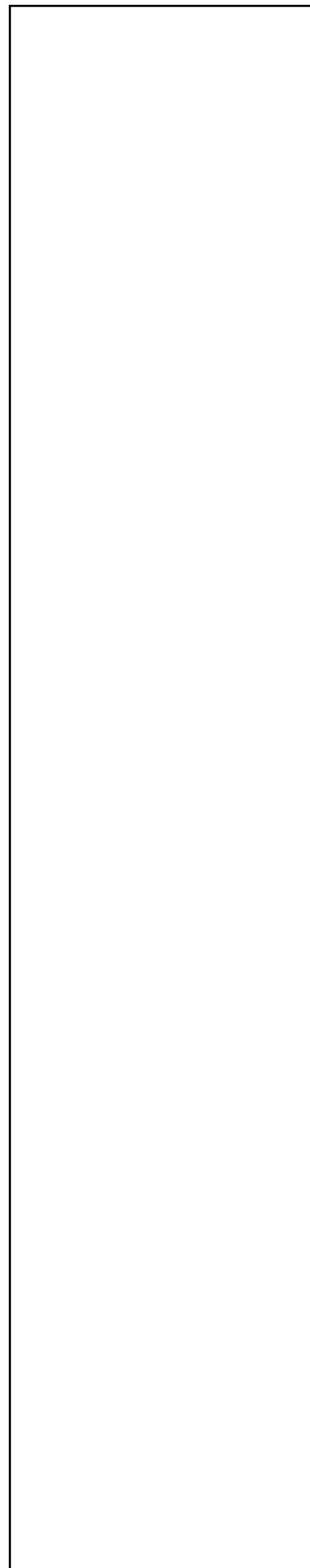
#### *If a ventilation system is provided*

- ✓ For local exhaust ventilation (LEV) systems, a user manual or log book is helpful in setting out the frequency of checking, maintenance or parts replacement.
- ✓ For LEV systems with no user manual or log book, you may need the help of a competent person. They can determine the performance needed for adequate control.
- ✓ Keep records of all examinations for at least 5 years.
- ✓ LEV systems require a statutory 'thorough examination and test' (TExT).
- ✓ Get a competent person to perform the TExT at least every 14 months.
- ✓ Carry out all actions arising from the TExT.
- ✓ HSG258 provides more detailed information on LEV systems and legal and competence requirements.
- ✓ Several measures are available to check effectiveness of controls. These range from simple qualitative (use of dust lamp) to complex quantitative techniques (eg air sampling) – usually for higher risk scenarios.

**Caution:** You may need to use permit-to-work procedures for confined spaces.

### Cleaning and housekeeping

- ✓ Clean work equipment and the work area outside the defined storage area daily. Clean other equipment regularly – at least once a week.
- ✓ Have a procedure for dealing with spills and clear them up straight away.
- ✓ Vacuum dry dust or use wet cleaning methods.



## Training and supervision

- ✓ Provide supervision – ensure that safe work procedures are followed.
- ✓ Tell workers about the hazards associated with their work.
- ✓ Provide workers with training on:
  - working safely with hazardous substances;
  - when and how to use controls;
  - how to check they are working; and
  - what to do if something goes wrong.
- ✓ Consider keeping training records.
- ✓ Changes to the work process and LEV means that staff might need retraining.
- ✓ Have a procedure to check that control measures are in place and being followed.
- ✓ Involve managers and supervisors in health and safety training.

## Essential information

*General advice on chemicals causing harm via skin or eye contact* COSHH Guidance Sheet S100 HSE Books 2015  
[www.hse.gov.uk/pubns/guidance/s100.pdf](http://www.hse.gov.uk/pubns/guidance/s100.pdf)

*Selection of personal protective equipment* COSHH Guidance Sheet S101 HSE Books 2015 [www.hse.gov.uk/pubns/guidance/s101.pdf](http://www.hse.gov.uk/pubns/guidance/s101.pdf)

## Further information

Safety data sheets

*Chemical warehousing: the storage of packaged dangerous substances* HSG71 HSE Books 2009 [www.hse.gov.uk/pubns/books/hsg71.htm](http://www.hse.gov.uk/pubns/books/hsg71.htm)

*Safe handling of combustible dusts. Precautions against explosions* HSG103 HSE Books 2003 [www.hse.gov.uk/pubns/books/hsg103.htm](http://www.hse.gov.uk/pubns/books/hsg103.htm)

*Dangerous substances and explosive atmospheres* L138 HSE Books 2003 [www.hse.gov.uk/pubns/books/l138.htm](http://www.hse.gov.uk/pubns/books/l138.htm)

You can find the full COSHH essentials series at [www.hse.gov.uk/coshh/essentials/index.htm](http://www.hse.gov.uk/coshh/essentials/index.htm)

Occupational Safety and Health Consultants Register [www.oshcr.org/](http://www.oshcr.org/)

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## Employee checklist

- When moving materials make sure the storage area is well ventilated, and any extraction or air supply is switched on and working properly.
- Re-cover stockpiles not in use with tarpaulins/plastic covers where provided.
- When stockpiles aren't in use, keep doors and windows shut whenever possible to prevent draughts and the spread of contamination.
- Look for signs of leaks, wear and damage before every job.
- If you find any problems, tell your supervisor. Don't just carry on working.
- Wash your hands before starting the job, and before eating, drinking, smoking or using the lavatory.
- Clear up spills immediately. For liquids, contain or absorb spills with granules or mats. For solids, use vacuum or wet cleaning.
- Dispose of spills safely.
- Use, maintain and store any PPE provided in accordance with instructions.

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Published by the Health and Safety Executive 01/18