Composting

COSHH essentials for farmers

This information will help employers, the self-employed and contractors comply with the Control of Substances Hazardous to Health Regulations 2002 (COSHH), as amended, to control exposure and protect workers’ health.

It is also useful for trade union safety representatives.

This sheet describes good practice using vehicles with a filtered air supply to the cab, or if that is not practicable, RPE.

It covers the key points you need to follow to help reduce exposure to an adequate level.

It is important to follow all the points, or use equally effective measures.

Main points

- High dust levels can be produced when moving compost.
- Keep exposure as low as possible using all the controls in this sheet.
- Health surveillance is usually needed - see sheet G402.

Control approach 2 Engineering control

Hazard

✓ Dust and spores are produced by compost shredding, windrow turning, screening and transfer. These can cause lung diseases such as asthma. Spores are too small to see.

✓ Control exposure to stop occupational lung diseases developing - this means short-term as well as long-term exposure.

✓ If an individual develops occupational asthma, avoid further exposure.

Access and premises

✓ Only allow access to trained people. Keep everyone else away.

Equipment and procedures

Vehicles

✓ Use a vehicle with air filtration fitted to the cab, including the following features:
  - pre-filters, to protect the main HEPA filter;
  - pressure gauges to show the system is working properly;
  - alarms to sound when filters clog;
  - overpressure above 10 Pa inside the cab to prevent dusty air ingress;
  - flaps to release excess pressure;
  - door seals - heavy-duty neoprene or other suitable material; and
  - self-closing doors.

✓ Check that the clean air is turned on and working.

✓ Check any air conditioning self-test every time you start the vehicle.

✓ Keep doors and windows closed.

✓ If this is not possible, use RPE for moving compost.

Conveyors, etc

✓ Use enclosed or extracted elevators, conveyors and screens.

✓ You need an inward air speed between 1 and 2.5 metres per second into the openings.

✓ Fit manometers or pressure gauges near extraction points, to show that the system is working properly.

✓ Mark the acceptable range of readings.

✓ Keep extraction ducts short and simple - avoid long sections of flexible duct.
If possible, discharge cleaned, extracted air to a safe place outside, away from doors, windows and air inlets.

Consult a qualified ventilation engineer to design new control systems or to update current controls. See sheet G406.

Respiratory protective equipment (RPE)

- RPE should not be needed if the cab filters are working properly.
- RPE is needed where breathing dust is unavoidable.
- Powered or air-fed RPE is more comfortable to wear.
- Select RPE that suits the wearer, the job and the work environment.
- Use RPE with an assigned protection factor of at least 10. See sheet R2.
- Disposable RPE, type FFP2, is acceptable. Don’t use ‘nuisance dust’ masks.
- Make sure that RPE fits properly - get advice from your supplier or read the instructions on the box.
- Train workers to check their RPE works properly before use.
- Replace RPE filters as recommended by the supplier. Throw away disposable RPE at the end of the day, or sooner if heavily soiled.
- Keep RPE clean and store it away from dust.

Special care

- Consider immunising workers against tetanus.

Maintenance, examination and testing

- Follow instructions in maintenance manuals - keep equipment in effective and efficient working order.

Vehicle air filtration

- Plan regular checks and maintenance of the critical parts.
- Every day, look for signs of damage, eg door and window seals. Repair damage immediately.
- Check pre-filters regularly - keep spares.
- Check that the filter seating is in good condition.
- Change inlet air HEPA filters as advised by the manufacturer, but at least after every 250 hours’ use.
- Get a competent ventilation engineer to examine the air filtration regularly.
Dust extraction equipment

✓ Look for signs of damage, eg to ducts and seals. Noisy or vibrating fans indicate a problem.
✓ Check that dust extraction and gauges work properly.
✓ If the extraction is faulty, use RPE until it is repaired, and when carrying out repairs.
✓ You need to know the manufacturer’s specifications to check the extraction’s performance.
✓ If this information isn’t available, hire a competent ventilation engineer to determine the performance needed for effective control.
✓ The engineer’s report must show the target extraction rates.
✓ Keep this information in your testing log-book.
✓ Get a competent ventilation engineer to examine the extraction thoroughly and test its performance at least once every 14 months. See the HSE publication HSG54 - see ‘Further information’.

RPE

✓ Examine and test non-disposable RPE thoroughly at least once every three months.
✓ Keep records of all examinations and tests for at least five years.
✓ Review records - failure patterns show where preventive maintenance is needed.

Cleaning and housekeeping

✓ Clean the cab at least once a week. Use a Type H vacuum cleaner fitted with a HEPA filter, or wet clean to avoid stirring up dust.
  Caution: Don’t use a brush or compressed air, and never use compressed air to remove dust from clothing.

Health surveillance

✓ There is a chance of lung disease developing, even with good controls in place. Use health surveillance - see Sheet G402.
✓ Ask an occupational physician for advice - see ‘Useful links’

Training and supervision

✓ Tell workers that compost spores and dusts can cause lung diseases. Show them this sheet.
✓ Working in the right way and using the controls correctly is important for exposure control. Train and supervise workers. See sheet AG0.
✓ Ensure that health surveillance is carried out on everyone that needs it.
Further information

- *Respiratory protective equipment at work: A practical guide*
- *Preventing asthma at work. How to control respiratory sensitisers* L55
  HSE Books 1994 ISBN 0 7176 0661 9
- *Common zoonoses in agriculture* Agriculture Information Sheet
  AIS2(rev2) HSE Books 2000
- See www.hse.gov.uk/pubns/agindex.htm for other advice on health and safety risks in agriculture.

Useful links

- For information about health and safety, or to report inconsistencies or inaccuracies in this guidance, visit www.hse.gov.uk/. You can view HSE guidance online and order priced publications from the website. HSE priced publications are also available from bookshops.
- Contact the British Occupational Hygiene Society (BOHS) on 01332 298101 or at www.bohs.org for lists of qualified hygienists who can help you.
- Look in the Yellow Pages under ‘Health and safety consultants’ and ‘Health authorities and services’ for ‘occupational health’.
- Also see www.nhsplus.nhs.uk.

Employee checklist

- Shut cab doors and windows.
- Is the air filter working properly?
- If using RPE, is it working properly?
- Look for signs of leaks, wear and damage.
- If you find any problems, get them fixed. Don’t just carry on working.
- Co-operate with health surveillance.

This document contains notes on good practice which are not compulsory but which you may find helpful in considering what you need to do.

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