

# FD1

## COSHH essentials for foundries

# Fume: General ventilation

## Control approach 1 General ventilation



This information will help employers (including the self-employed) comply with the Control of Substances Hazardous to Health

Regulations 2002 (COSHH), as amended, to control exposure to metal and casting fume and protect workers' health.

It is also useful for trade union safety representatives.

This sheet describes good practice using general ventilation.

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

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

Molten metal fume (foundry fume) is hazardous to health. Ferrous foundry fume can cause lung cancer. Casting fume is irritating to breathe.

This sheet does not apply to aluminium.

### Main points

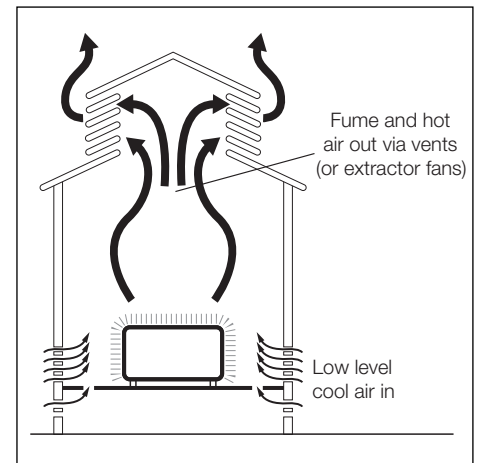
- Keep exposure to fume as low as possible.
- Make sure the controls work.

### Access and premises

- ✓ Only allow access to authorised staff.

### Equipment

- ✓ Fume is hot and tends to rise.
- ✓ Provide high-level air vents or extraction fans so hot air leaves the building.
- ✓ Provide low-level air inlets. Inlet air may need warming in winter.
- ✓ Ensure the flow of air into and out of the building is not obstructed.
- ✓ Good general ventilation means rapid fume clearance and a through draught.
- ✓ Confirm that any fan extractors are switched on and blades are turning. Consider linking the fan with lighting.
- ✓ If you have an overhead travelling crane, the driver's cabin needs a clean air supply.



### Maintenance, examination and testing

- ✓ Follow instructions in maintenance manuals - keep equipment in effective and efficient working order.
- ✓ If extractor fans stop, or are faulty, get them repaired.
- ✓ At least once a week, check visually that the roof vents or extractor fans are clearing the fume properly.
- ✓ Noisy or vibrating fans can indicate a problem.
- ✓ Keep records of all examinations and tests for at least five years.

### Personal protective equipment (PPE)

- ✓ Ask your supplier to help you select the right PPE.
- ✓ Respiratory protective equipment (RPE) may be needed for cleaning. If so:
  - Provide RPE with an assigned protection factor (APF) of at least 10. See sheet R2.
  - Disposable RPE is acceptable - throw this away at the end of the task.
  - Otherwise replace RPE filters as recommended by the supplier.

### Cleaning and housekeeping

- ✓ Clean general workrooms once a week to stop dust being stirred up.
- ✓ Use a Type H vacuum cleaner fitted with a HEPA filter to clear up dust.

**Caution: Don't use a brush or compressed air.**

### Training and supervision

- ✓ Tell your workers that foundry fume is hazardous to health when breathed in.
- ✓ Working in the right way and using the controls correctly is important for exposure control. Train and supervise workers. See sheet FDO.

### Further information

- *General ventilation in the workplace: Guidance for employers* HSG202 HSE Books 2000 ISBN 0 7176 1793 9
- *Respiratory protective equipment at work: A practical guide* HSG53 (Third edition) HSE Books 2005 ISBN 0 7176 2904 X
- For environmental guidelines see sheet FDO

### Useful links

- For information about health and safety, or to report inconsistencies or inaccuracies in this guidance, visit [www.hse.gov.uk/](http://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](http://www.bohs.org) for lists of qualified hygienists who can help you.

This document is available at: [www.hse.gov.uk/pubns/guidance/](http://www.hse.gov.uk/pubns/guidance/) and [www.hse.gov.uk/cosHH/essentials/](http://www.hse.gov.uk/cosHH/essentials/)

**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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### Employee checklist

- If you find any problems, tell your supervisor. Don't just carry on working.
- Use, maintain and store your protective equipment in accordance with instructions.
- Never use solvents to clean your skin.