

SR14

COSHH essentials for service and retail

Vehicle exhaust fumes (in warehouses, garages, etc)

Control approach 2 Engineering control



This information will help employers (including the self-employed and franchisees) 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 gas scavenging of fumes from stationary vehicles.

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.

The trade press and industry associations are good sources of information.

Main points

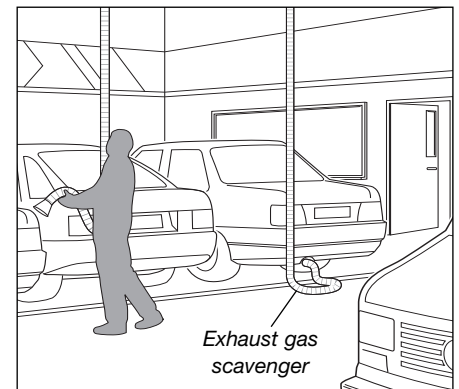
- Vehicle exhaust fumes irritate the eyes and respiratory tract. Petrol or gas (LPG) fuelled engines produce up to 10% of carbon monoxide, a poisonous gas.
- Diesel exhaust fumes increase the risk of lung diseases.
- Check that all the controls are being used properly.

Access and premises

- ✓ Restrict access to those people who need to be there.
- ✓ Mark out safe pedestrian routes.

Equipment

- ✓ Keep the workplace well ventilated; at least 10 air changes per hour. Consider wiring the extraction fans with the lighting circuit.



Static running, eg vehicle testing

- ✓ Install tailpipe exhaust scavenge systems that are hard to damage - crushed ducts do not work.

Moving vehicles, eg warehouses

- ✓ Consider using electric powered vehicles.
- ✓ Fit converters to reduce exhaust fumes.

Personal protective equipment (PPE)

- ✓ Respiratory protection equipment (RPE) should not be needed if the extraction and ventilation are working properly.

Procedures

Static running, eg vehicle testing

- ✓ Connect an exhaust gas scavenger to the vehicle tailpipe.
- ✓ Turn on the scavenge system before starting the vehicle.

Moving vehicles, eg warehouses

- ✓ Turn on extraction fans before starting vehicles.
- ✓ Check that inlets for make-up air are not blocked.
- ✓ Start up diesel-fuelled vehicles outside.
- ✓ Turn off the engine when the vehicle is not needed.

Maintenance, examination and testing

- ✓ Watch out for dark smoke from diesel engines or unusual acrid smells from LPG-fuelled engines. These engines need immediate maintenance.

- ✓ Follow instructions in maintenance manuals - keep equipment in effective and efficient working order.
- ✓ If the extraction is faulty, stop work until it is repaired.
- ✓ Do regular maintenance on diesel engines to reduce exhaust emissions.

Static running, eg vehicle testing

- ✓ Every day, look for signs of damage to the scavenge ducts.
- ✓ At least once a week, check that the scavenging system works properly.
- ✓ You need to know the extraction design performance to know if is working properly. The equipment supplier's manual should give this information.
- ✓ Get a competent ventilation engineer to examine the system thoroughly and test its performance at least once every 14 months (see HSE publication HSG54).
- ✓ Keep records of all examinations and tests for at least five years.

Moving vehicles, eg warehouses

- ✓ At least once a week, check visually that the fan and roof vents are clearing the fume properly. Look for signs of damage to the fan and dirt build-up on the blades.
- ✓ Get a competent ventilation engineer to examine the system thoroughly and test its performance regularly.
- ✓ Keep records of all examinations and tests for at least five years.
- ✓ Test LPG-fuelled engines for carbon monoxide emissions regularly.

Training and supervision

- ✓ Working in the right way and using the controls correctly is important for exposure control. Train and supervise workers. See sheet SR0.

Further information

- *Maintenance, examination and testing of local exhaust ventilation* HSG54 (Second edition) HSE Books 1998 ISBN 0 7176 1485 9
- *Control of diesel engine exhaust emissions in the workplace* HSG187 HSE Books 1999 ISBN 0 7176 1662 2

Useful links

- HSE priced and free publications are available from HSE Books
Tel: 01787 881165 Website: www.hsebooks.co.uk.
- For information about health and safety ring HSE's Infoline Tel: 0845 345 0055 Textphone: 0845 408 9577 e-mail: hse.infoline@natbrit.com.
- Contact the British Occupational Hygiene Society (BOHS) on 01332 298101 or at www.bohs.org for lists of qualified hygienists who can help you.

Employee checklist

- Look out for signs of blue or black smoke from a diesel engine, or unusual or acrid smells from an LPG fuelled engine.
- If you find any problems, tell your supervisor. Don't just carry on working.
- Wash your hands after use, and before and after eating, drinking, smoking and using the lavatory.
- Never clean your hands with concentrated cleaning products, solvents or fuel.

This guidance is issued by the Health and Safety Executive. Following the guidance is not compulsory 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 as illustrating good practice.