

Carbon Monoxide Guidance for Solid Fuel and Wood Fuel Users

Carbon Monoxide is a tasteless, odourless gas, which is the product of incomplete combustion of any fossil fuel. It is therefore present when you burn coal or smokeless coal or wood. It will also be present when you use barbecue fuel.

The information on our News page gives you the basic information about carbon monoxide poisoning, advice on how to prevent it and what to do if you suspect it. Here we give you some more specific information about carbon monoxide and solid fuel and wood fuel appliances.

Burning fossil fuels pose no danger so long as the appliance is installed correctly, is maintained and used according to the manufacturers' instructions and the chimney is kept clear of blockages and does not leak.

What to do if you suspect carbon monoxide is present

- Open doors and windows
- Allow the fire to burn itself out
- Do not stay in the room any longer than is necessary
- Do not attempt to re-kindle the appliance until it has been checked by a competent engineer.
- Get your chimney swept.

The Solid Fuel Association can give you further help and advice on 0845 6014406.

Prevention

Correct Installation

All combustion appliances for heating have to be installed in accordance with Building Regulations Part J and the manufacturer's instructions. These Regulations govern, for instance, the amount of ventilation required for your appliance, the distance of the installation from combustible material, the size of hearth, the size of the flue and height of the chimney. All solid fuel and wood burning appliances may only be installed after prior notification to and approval from Building Control Departments or if they are installed by a "**Competent Person**". For solid fuel and wood fuel installation work, a Competent Person will be a person registered by one of the bodies currently approved as registration bodies by DCLG and noted in the Building Regulations. The most common registration for solid fuel and wood fuel engineers is through **HETAS**. (www.hetas.co.uk/pdfs/CPRS_index.pdf) Such persons will self certify that the work has been carried out in accordance with Building Regulations and the manufacturers' instructions.

Adequate Maintenance

Solid Fuel and Wood Burning Appliance are generally very easy to maintain and many lack the sophisticated electrical components incorporated into many gas and oil. All newly installed closed appliances and many existing installations will however incorporate a thermostat and possibly a fan. These may need replacing or resetting from time to time. We recommend you have your appliance checked by a registered Competent Person on an annual basis. This will not only assure you of the safety of the appliance, but also ensure it is working as efficiently as possible.

There are other items of maintenance you should undertake yourself, such as **cleaning the throat plate of a stove or roomheater on a monthly basis**. It is important you do this, because a build up of soot can cause a blockage and the carbon monoxide (and the smoke) may not be removed safely up the chimney. Removing the throat plate of UK manufactured roomheaters and stoves, typically installed in local authority or older houses is generally very simple. We have come across some plates on stoves, however, which are very difficult to remove. It is worthwhile considering this point if you are buying a new appliance. Many people leave this job for their chimney sweep, but if you only have the chimney sweep once or twice a year and you use the fire on a regular basis, this is not enough. **Flueways at the back of boilers need to be cleaned once a week. Regularly check doorseals for a tight fit.**

Ash pans should be emptied daily or more regularly as the ash builds up. Ash pit doors should also fit snugly.

Missing glass in firedoors should be replaced immediately. **Do not leave the doors of a closed appliance open, unless approved by the appliance manufacturer.**

Chimneys

For both open fires and closed appliances, the chimney should be the only route for the smoke and gases, including carbon monoxide, to exit the house. This means the chimney must be kept clean and be free of any major defect. The recommended time to **sweep a chimney** is just prior to the main burning season in the autumn. If you are burning housecoal or wood, the chimney should be swept again during the burning season. Remember that chimney sweeps get very busy from September through to Christmas, so book early. Use a sweep who is a member of a bona fide organisation which provides training such as **NACS**, (www.chimneyworks.co.uk) **GMS** (www.guild-of-master-sweeps.co.uk) and **APICS** (www.hetas.co.uk/pdfs/NACS_index.pdf)

Blockages and restrictions to the chimney can be caused by a build up of **soot, resinous tars (particularly if you burn damp wood or pine), birds nests, dead birds, cobwebs**. Bear in mind that if we have a mild winter, followed by a cold spell in late April/May, this may give time for birds to nest prior to your relighting the fire.

Periods of excessive and constant rain may result in chimney deposits being washed down the flue which may block the appliance outlet.

Harmful gases can escape into your house or if on a party wall, into your neighbours' house, if the chimney is defective. If you are opening up your fireplace to install or reinstall a solid fuel appliance, always get the chimney **smoke tested** first. When the chimney is very old or of unusual construction a full investigation using a video camera is advisable. If the lining or mortar in the chimney is cracked, gases may escape in the house – this may cause staining on walls or a smell of smoke in upstairs rooms or in loft spaces. If you smell smoke in these circumstances, do not use the appliance until the chimney has been checked and relined if necessary.

Downdraught and Ventilation

Some people experience smoke coming back down the chimney or a lack of draw on the chimney so smoke is not pulled up the flue. This is often a problem with large fireplaces. Smoke contains carbon monoxide, but usually the appearance of smoke in such large quantities ensures the fire is let out to avoid the unpleasantness. Insufficient draw in the chimney may be caused by a variety of reasons. Some of these are: an incorrect ratio between the flue size and the fireplace opening; insufficient ventilation getting into the room with the appliance in; (Building Regulations stipulate the size of airbrick required for appliances of different outputs); the situation of the dwelling may create high pressure zones on the roof which prevents the smoke escaping; all too frequently customers fit the **wrong kind of cowl** to cure this problem. Some designs of cowl are suitable for solid fuel but the wrong kind can prevent smoke escaping.

The Solid Fuel Association has produced guides which can be ordered over the phone (Curing Chimney Problems, Ventilation Requirements for Solid Fuel Appliances). **If you fit double glazing you will probably need to increase the size of airbrick to ensure there is sufficient ventilation.**

Fuels

Only use those fuels recommended by the manufacturer. Most stoves on the market are multifuel and will burn wood and coal. Some older style models may only burn smokeless coal. Use of wood or coal on these may lead to a build up of deposits which are difficult to remove and cause blockages. Otherwise use only well seasoned dry wood.

Landlords

There is at present no legal requirement for a landlord to produce an annual safety check certificate, as for gas appliances. However many responsible landlords will do so since he/she owes a duty of care to tenants. Some landlords may make it a requirement of the tenancy agreement that the customer is responsible for these checks to be done. Landlords must ensure tenants understand this duty and take steps to ensure it is carried out. Tenants should make sure there is agreement about this responsibility and how often the chimney is swept.

Signs of the possible presence of Carbon Monoxide

Symptoms of carbon monoxide poisoning, including drowsiness, flu- like symptoms and headaches, are described in the Carbon Monoxide Safety leaflet which can be downloaded from our Safety Advice page.

(www.solidfuel.co.uk/frame/main.html).

In the house, the presence or smell of smoke, staining around the fire or around fireplaces or blocked up fireplaces using the same chimney and difficulty in keeping the fire alight may all be signs of flue leaks or blockages.

For further advice and to obtain a range of helpful leaflets including a summary of the above, visit the Solid Fuel Association website www.solidfuel.co.uk or telephone 0845 601 4406.