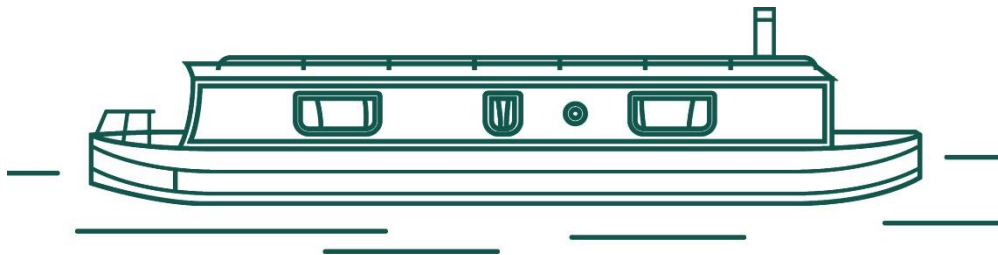


Healthy Waterways for All: Wood Burning and Smoke Control

Information and advice about reducing air pollution from wood and coal burning for heating on canal boats



Exposure to air pollution can affect anyone's health at any stage in our lives. There are many sources of pollution but those most important for boaters are:

- **Fine particulate matter (PM_{2.5})**, which is produced when burning wood, coal and other solid materials for heating. PM_{2.5} is the focus of this information leaflet
- **Nitrogen dioxide (NO₂)**, which is produced when burning diesel and petrol in engines and generators

London's air pollution exceeds the World Health Organization guidelines. **Burning wood and coal for heating emits dangerous pollution known as fine particulate matter (PM_{2.5})¹**, which is so small that it cannot be seen and can enter deep into the respiratory system and the bloodstream. Exposure to PM_{2.5} can cause asthma, heart disease, and other serious illnesses affecting our lungs, hearts and brains, and can trigger the symptoms of existing health conditions. For more information please visit [Public Health England – Health matters: air pollution²](https://www.gov.uk/government/publications/health-matters-air-pollution/health-matters-air-pollution)

Air pollution and boaters

Although canal boats only produce a small portion of London's overall air pollution, those most at risk from this pollution are boaters themselves. Recent research analysing the impacts of wood-burning on indoor air quality has found that using wood stoves can increase indoor PM_{2.5} levels to three times those found in homes with no wood-burning.

Using cleaner sources of energy, such as mains electricity, can significantly reduce air pollution and better protect boaters' health.

Using other fuels for heating may not be viable for boaters who are unable to connect to mains electricity. However **you can still help to reduce air pollution from wood or coal burning by burning only Defra-authorized 'smokeless' fuels³ and using Defra-approved stoves⁴.**

¹ <https://www.london.gov.uk/what-we-do/environment/pollution-and-air-quality/guidance-wood-burning-stoves-london>

² <https://www.gov.uk/government/publications/health-matters-air-pollution/health-matters-air-pollution>

³ <https://smokecontrol.defra.gov.uk/fuels.php?country=england>

⁴ <https://smokecontrol.defra.gov.uk/appliances.php?country=england>

Smokeless fuels include:

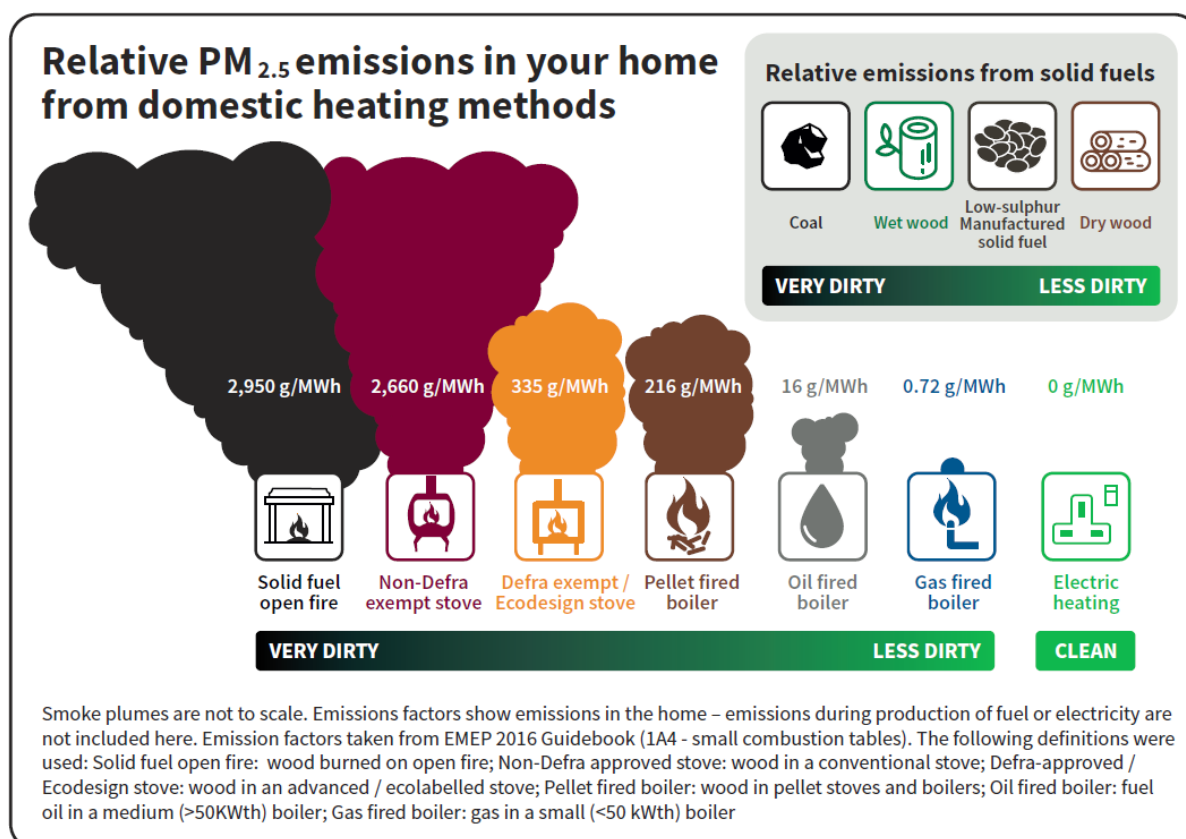
- Anthracite and semi-anthracite
- Natural gas
- Low volatile steam coal

From May 2021 it will be illegal to sell wet wood and bituminous coal. However, it is important to remember that burning smokeless fuel still produces air pollution which can affect health.

Similarly, although Defra-approved stoves burn fuels more efficiently than older stoves and open fires, they still produce 300 times more PM_{2.5} air pollution than gas boilers or electric heating systems, and six times more than a modern diesel lorry. The infographic below shows a comparison of the pollution produced by different types of heating systems and fuels.

Therefore it is always important to also:

- **Consider burning less fuel where possible**
- **Routinely maintaining and servicing your stove**
- **Keeping your chimney or flue clean**
- **Ensure you never burn plastics, chipboard, treated wood and other types of rubbish**, there's more environmentally friendly and less dangerous ways to get rid of waste



Going green and clean

Every boat is different and the costs for making changes to reduce air pollution will vary. We encourage all boaters to explore the changes that could be made to their boat to make it more eco-friendly and less polluting. Visit <https://canalrivertrust.org.uk/cleanerboating> for further information and advice.