

# A deep dive into carbon monoxide and solid fuels for the CO Research Trust

Research finds that carbon monoxide (CO) could be a bigger issue than first anticipated. In a research project into CO for The CO Research Trust (CORT), IOM found that there is an indication of underreporting of accidents, injury and illness related to using solid fuels in the home. Meaning that the problem is worth exploring further so that regulation and better data reporting can be implemented to protect us.

## HOW IOM CAN HELP

IOM can help solve this problem in many ways. The first is to continue doing research into this area, offering independent and authoritative information to regulators, and interested parties. In areas where there is a concern around CO, particularly in workplaces, IOM's occupational hygienists and UKAS accredited laboratory can conduct sampling and analysis. Giving you an understanding of what is in the air and how to mitigate any causes for concern.

## THE RESEARCH PROJECT IN MORE DETAIL

### What was the client's problem?

This research project on the landscape of solid fuels and CO aimed to identify the current state of play for the regulatory and policy landscape and incident data for CO in domestic settings in the UK. The study had the following key objectives:



- Gain an appreciation of the number of CO poisoning incidents from solid fuels in the UK and the potential levels of underreporting of incident numbers.
- Gain an understanding of the barriers to obtain accurate CO incident numbers from solid fuel.
- Identify the issues or risks associated with the installation, maintenance and use of solid fuel appliances.
- Identify future research opportunities for solid fuel and CO.



## HOW DID WE SOLVE IT?

The methodology used to answer these objectives were a literature review, stakeholder engagement through interviews and requesting and analysing FOI requests to health authorities and the emergency services in the UK. We also compared the current situation for solid fuels with that of the gas sector to gain an understanding of the differences between solid fuel and gas, and to highlight gaps by performing a gap analysis.

## RESULTS

Our results showed that regulatory and policy landscape for the gas sector is more developed than the landscape for the solid fuel sector in regard to CO. The key difference being in the way incidents are reported for gas under RIDDOR regulations, which is not the case for solid fuels and differences in regulations between different parts of the UK.

It is clear that further work is required for incident numbers for solid fuels and CO. There was limited data from the emergency services for solid fuel CO incident numbers with 75% of Fire and Rescue Services (of those that data was requested) being able to supply data with no solid fuel CO data available from the Police and Ambulance Services.

It has not been possible to establish if the data we obtained was representative as the reporting varies between services. It is clear from our review,

however, that the **number of solid fuel CO incidents may be underreported**.

As a result, one of our recommendations was to develop a standardised template for reporting which would enable greater consistency of results and support the drawing of meaningful conclusions from the data. It is an approach which has proven successful for the EU funded GRACIOUS project.

## WHAT DID THIS PROJECT MEAN FOR CORT AND THEIR STAKEHOLDERS?

*"As a charity whose priority is carbon monoxide (CO), we recognise the issue of indoor air quality as having a significant impact on health. One of our focuses has been to identify the scale of risk posed by CO exposure. The project carried out by the IOM has been a great step forward in identifying the need for improved data, as well as outlining a proposed roadmap to provide better data collection."* Adrian McConnell, Head of Charitable Operation, the CO Research Trust.

## WHAT WAS CORT'S FEEDBACK WITH REGARDS TO WORKING WITH IOM?

The CO Research Trust have worked with the IOM for over 5 years on a range of activities from carrying out data collection and analysis, to surveys and interviews. *"The CO Research Trust has every confidence in the professional and thorough approach of the IOM. Since the*

*completion of the Solid Fuel and CO Review, the CO Research Trust has awarded a subsequent grant to the IOM for a project to analyse historical data that has been collected. We look forward to continuing to work alongside the IOM in future projects."* Adrian McConnell, Head of Charitable Operation, the CO Research Trust.

## HOW DOES THIS PROJECT IMPACT BROADER SOCIETY?

As this project has demonstrated, we still do not know the extent of CO risk posed by the burning of solid fuels. Solid fuels, in particular wood burning fires have experienced a resurgence in popularity in recent years. It is thought over 1.5 million homes in the UK have one. So, it is now more pertinent than ever for us to understand the scale of risk in this area.



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