

# Ignorance Can Be Fatal

The fight to reduce instances of carbon monoxide (CO) poisoning cannot be fully effective with disparate individuals, campaigns, businesses and industries working in isolation to prevent injuries and deaths caused by the UK's "silent killer".

Good progress has been made in our sector, including for example the introduction of the Gas Safe Register, but now wide-ranging stakeholders must evaluate and agree upon common shared strategies to further reduce unnecessary cases of CO poisoning in whatever context they occur.

Taking the lead in this area, on July 11th, IGEM will host a free to attend, interactive conference on Carbon Monoxide. Entitled Ignorance Can Be Fatal, this one day event is designed to encourage collaboration across the fossil fuel industry, emergency services, medical professionals, landlords, local authorities, housing associations, CO campaigners and other key groups so that they all work together to prevent carbon monoxide tragedies.

To deliver the event IGEM has teamed up with the Carbon Monoxide All Fuels Action Forum, which was set up to enable political, business and community representatives to work together to tackle CO poisoning. Sponsor of the event Wales & West Utilities will be on hand to offer its support.

Ahead of the event and as the weather improves, Gi introduces some key risks, impacts and preventative measures associated with CO poisoning and examines the particular dangers of barbecues and campsites.

## CO: Why the need for action?

By official estimates CO poisoning claims the lives of around 50 people each year. A further 200 people are admitted to hospital with serious injuries and 4,000

are diagnosed with CO poisoning at accident and emergency departments.

Regrettably, the actual figures are presumed higher since detection can be difficult and awareness remains low. Although IGEM's motive is to protect lives, there is an economic purpose too. It is suggested fatalities and injuries cost the NHS about £178-million a year.

The effects of CO poisoning can be quick. It is a colourless, odourless and tasteless gas which at relatively high concentrations can cause drowsiness, unconsciousness and death within minutes. Often the casualty has no knowledge that CO is present until it is too late.

CO poisoning caused by long term exposure to relatively low concentrations of CO can be equally dangerous. Cumulative exposure can be incapacitating and lethal. However, further research is needed in this area.

In 2011, a six-month inquiry conducted by the All-Party Parliamentary Carbon Monoxide Group heard evidence on all aspects of CO poisoning and prevention. Its report Preventing Carbon Monoxide Poisoning provided 17 recommendations spanning many sectors.

## What are the issues with barbecues and campsites?

Many people associate CO poisoning with gas safety and appliances but are unaware that all carbon-based fuels produce CO as a result of incomplete combustion in an inadequate supply of oxygen.

Carbon-based fuels include, but are not limited to, natural gas, liquefied petroleum gas (LPG), gasoline, oil, coal, charcoal and

wood. Therefore the risks are much more widespread than is often supposed.

On campsites it is critical that barbecues are never operated inside tents or tent porches, camping pods, caravans, or under awnings for light or heat. However, several deaths and injuries caused in this way have been reported in recent years. They include:

In May 2012, a 14-year-old girl was killed and her parents injured by CO poisoning after the family brought a barbecue inside their tent in cold weather on a campsite in Shropshire.

In March 2012, a 45-year-old man was killed by CO poisoning after bringing a barbecue inside to heat the wooden camping hut he was sharing with his wife while on holiday in the Lake District.

In August 2011, a 34-year-old woman from Derbyshire was killed at a campsite in Gwynedd after a smouldering barbecue was stored inside the family tent.

## Suggested actions to reduce campsite injuries and fatalities

Effective communication is vital to raising general awareness, with owners and managers of campsites taking responsibility to ensure guests are provided with appropriate information and warnings on arrival or in welcome literature.

Campsites should also promote the use of CO alarms by their guests for better detection. Generally, uptake of CO alarms even in the home is low, but they are nonetheless inexpensive, reliable and can last for many years.

Better regulation of charcoal and disposable barbecue packaging could





## A closer look at exposure to CO

The greater the CO concentration of inhaled air the more rapid and severe symptoms will be although individual reactions vary. Symptoms range from mild headache, nausea, dizziness, fatigue and bodily weakness through to collapse and coma.

At high concentrations, such as 12,800 parts per million (ppm) (1.28 per cent of air), death can result after just one to three minutes of exposure. Once a person begins experiencing symptoms of CO poisoning any exertion can exacerbate the effects.

Unfortunately this means that affected individuals are unable to leave or escape the contaminated location. Despite the risks of CO poisoning, if victims are discovered in time some of the worst harm may be avoided by:

- Moving the casualty away to a source of fresh air or the administration of oxygen
- Being made to rest – exertion can be fatal to victims of CO poisoning
- Medical attention being sought immediately

It is therefore important that emergency call operators and response teams are fully trained to handle cases of CO poisoning and are equipped with detectors. Anyone entering a possibly contaminated area must also ensure their own safety ahead of any casualties. ■

also help keep campers safe. At present European Standard EN 1860 requires certain safety information to be included on packaging, but not a specific warning about CO poisoning.

Most packaging warns against operating barbecues indoors, but this could easily be interpreted as a fire hazard warning only. Many would not appreciate the danger of CO building up in enclosed spaces. This standard could be revised to include a specific warning.

The APPCMG's report Preventing Carbon Monoxide Poisoning also suggests actions which would improve the outcome for all possible or suspected cases of CO poisoning, wherever they occur.

Improving awareness of causes and symptoms among emergency call operators is seen as crucial, as is providing all emergency response personnel with CO detectors. Ways of improving detection rates in GPs' surgeries and in hospitals have also been identified.

### Next steps: participating in IGEM's CO conference

All interested parties are invited to contribute their expertise, experience and insights by attending Ignorance Can Be Fatal, IGEM's free to attend, interactive conference on Carbon Monoxide taking place on Thursday, 11th July in the East Midlands.

While expert speakers, business leaders and campaigners will deliver presentations and lead question and answer and breakout sessions across many industries and sectors, it is clear that there is a lot to be learned from our industry's excellent safety record. ■

Further details can be found on IGEM's website or by contacting Julie Adcock on +44 (0)1509 678161 or email [Julie@igem.org.uk](mailto:Julie@igem.org.uk) You can tweet us your views @IGEMGi using the hashtag #IGEMCOconference