

CO-Gas Safety Unintentional Carbon Monoxide Poisoning Case Study

JOHN MCGIRL, Witness to incident in 2023



Fuel: Mains gas

Appliance & Location: Kitchen cooker in a rented family home

Notes by CO-Gas Safety: CO-Gas Safety were made aware of this incident via an article that appeared in *Registered Gas Engineer* magazine. We are grateful to the Gas Safe Register for making their members aware of incidents like these, which are all-too-common. On this occasion, Registered Gas Engineer John McGirl thankfully had the experience to recognise the signs of CO poisoning in a family he visited, and prevented an even more serious incident.

Mains gas should burn blue

I am a former British Gas engineer with over 45 years of experience in the industry. For the last 15 years I have been sub-contracting with smaller firms in my area and I specialise in emergency response. On a very cold Friday night in January 2023, I received a request from my employer to deliver some fan heaters to a rented terrace house. Appliances like this are usually left with customers when a boiler cannot be repaired immediately and they have no other form of heating.

Instantly aware there was a grave danger

As soon as the woman of the house answered the door it was apparent to me that there was a dangerous environment inside. Her face was ashen, her eyes were streaming. She told me that her husband was unwell and all three of her children, including a 1year-old, were poorly in bed.

Looking behind her into the kitchen I could see a gas cooker on, burning with a flame typical of poor combustion – it was yellowy-orange, not the crisp blue flame that indicates safe burning.

I immediately suspected CO poisoning and called 999, which brought all 3 of the emergency services to the house within minutes. The Fire & Rescue service confirmed CO in the house and, since it was a terraced house, they checked that it had not seeped into the adjoining properties. The paramedics agreed that the family had CO symptoms and so took all five of them to Addenbrooke's Hospital. Thankfully they were discharged after 24 hours and recovered.

Never use a cooking appliance for heating

All combustion appliances (anything that burns a carbon-based fuel, including gas, oil, wood and even petrol or diesel) must be used according to instructions, for their intended purpose and in a large enough space with good ventilation (such as openable doors and windows).

When there is a problem with a heating appliance, or an electrical power cut, people don't realise that turning on a gas hob or cooker for heat is a real danger to life. Using a generator indoors or in an adjoining garage (or even outdoors near an open window) can also be fatal. This is why my employers were delivering safer heaters to this family, though they should have been left when the boiler was found to be unrepairable, or clearer advice about not using the cooker for heat should have been given. As this was a rented property, there should also have been a working CO alarm although, shockingly, English law wouldn't have required that if the only gas appliance was a cooker!

Unfortunately I had witnessed unintentional CO poisoning before. In 1988 I attended the scene of a triple fatality due to a faulty boiler. That traumatic experience has stayed with me, and I am grateful that I arrived at this house in time to prevent another tragedy – this could so easily have caused a death if the cooker had stayed on without the parents realising what was causing their symptoms.