

## CO-Gas Safety Unintentional Carbon Monoxide Poisoning Case Study

### **RICHARD ASHBY, Survived in 2021**



*Sweeping the Ashby's chimney*

**Fuel:** Oil

**Appliance & Location:** Range cooker in his own home

**Notes by CO-Gas Safety:** CO-Gas Safety are grateful to the Guild of Master Chimney Sweeps for bringing this incident to their attention during CO Awareness week 2021. Mr Ashby and his wife had some knowledge of the dangers of carbon monoxide, so had installed a battery audio alarm near their oil-fired boiler several years previously. However, when it started to sound at night, their boiler was given the all-clear by a registered engineer and Mr Ashby luckily persisted with his investigations, calling his chimney sweep.

In September 2021 Richard Ashby fired up his oil-fired Aga range from its summer close-down, ready for the colder months. For the next few days, the carbon monoxide alarm in the utility room began to sound at night on and off. Richard and his wife could hear it when they got up in the night, so spent a couple of days checking the visual display of the alarm (their alarm gave a digital parts per million reading). They noted that at times it was showing up to 45 ppm CO and when they came down in the morning and opened doors and windows it returned to 0 soon after.

#### **Attempts to identify the problem**

Since the alarm was located close to their oil-fired boiler, Mr Ashby asked an OFTEC-registered boiler engineer to look at it. He found no issues of concern with the boiler or its lined flue. The boiler flue was located within a chimney, which also housed the unlined flue for the kitchen Aga that was situated on the other side of the same wall. Since the problem had not been rectified, Mr Ashby called Avondale Chimney Sweeps.

There was a sweeping access hatch in the kitchen, in the chimney breast above the Aga, and a vent above this hatch. The sweeps noted soot marks around the top of the stove pipe as it met the closure plate. Soot marks like this can be an indicator of leakage. They decided to inspect the range flue through the hatch prior to sweeping it, which turned out to be a good decision. They found live wasps in the brick flue and a subsequent CCTV and drone exam revealed that there was a large wasp's nest causing a blockage.

#### **A simple life-saving solution**

Mr Ashby called a pest control firm to make the wasp nest safe. He had not had the Aga chimney swept in 20 years and when Avondale subsequently returned to clear the nest they removed three buckets of material from it. It emerged that the blockage was originally a bee's nest that had been invaded by wasps. Once the chimney had been cleared the CO alarm display returned to 0ppm.

Without the CO alarm, the Ashby's would never have known there was a problem in the chimney, since the toxic gas can neither be seen or smelled by human senses and thankfully their draughty Victorian house had kept CO levels low enough to prevent either of them suffering any noticeable symptoms. Although the alarm was not actually in the correct proximity to serve the kitchen range, as it was located in a separate room to guard against any leak from the greater perceived threat of the boiler, it still gave good warning in this instance.