

CO-Gas Safety Unintentional Carbon Monoxide Poisoning Case Study

ANGELA PINKNEY, Deceased in 2005



Angela Pinkney

Age: 35

Fuel: Mains gas

Appliance & Location: Central heating boiler in her rented home

Notes by CO-Gas Safety: This case study is written by Angela's older brother, Michael. Angela's case is one where, sadly, despite the landlady being diligent in attempting to maintain the boiler safely, mistakes were made by qualified professionals. Not only did the boiler receive sub-standard care from engineers, but also Angela herself visited her local hospital with symptoms the day before she died and carbon monoxide poisoning was not diagnosed by staff there.

Angela found dead March 2005

Angela Pinkney, 35, an Oxford University admissions officer and administrator, was found dead in her bedroom in Littlemore, Oxford, in March 2005. Angela was my sister. Her death devastated our family and we still miss her terribly.

Angela moved into her privately-rented flat in 2003. Angie's best friend Joanne owned the flat and Angie paid rent to Joanne. It was a two bedroom flat and they had a room each. The flat was a fairly new, high-spec build in a converted hospital.

British gas engineers visited the flat many times

The boiler that supplied heating and hot water to the flat had been giving them problems and British Gas engineers had visited the flat ten times over the previous 18 months to look at it. Both Joanne and Angie were involved in calling out the engineers. Joanne was very diligent in trying to get the boiler fixed.

On March 16th a British Gas engineer visited the flat and I believe this is when an adjustment to the air-gas ratio valve was made. It was not possible to prove this in the legal proceedings following Angela's death and so charges were dropped against the engineer in question, but at some point in all the engineer visits the valve was certainly altered to make the incoming gas a richer mix, which would have increased levels of carbon monoxide being produced.

Joanne took Angela to hospital

Later on the same day, Joanne took Angela to the John Radcliffe Hospital, which was not far away. She was suffering from dizziness, a headache, nausea and anxiety. The doctors could not find any explanation for her symptoms and she improved as she waited there. At around 5.30am they came home without any diagnosis and Angela went to bed to try and recuperate, while Joanne went to work. When Joanne returned from work she found Angela dead in her bedroom.

High levels of CO found in Angela's room

Extremely high levels of CO were found in her room. A Post Mortem revealed that Angela had 55% COHb (carboxyhaemoglobin) in her blood. This binds to the blood's red blood cells, so preventing them from carrying oxygen, and that level is often fatal. It might seem odd that Joanne had not been as affected as Angela, despite living in the same flat. That seemed to be because the blocked ventilation pipe, which had been incorrectly fitted, was above Angie's ceiling. It could so easily have been a double tragedy. The occupants of the flat above Joanne's also had some effects of the CO but luckily one of them was a scientist and, when they realised they were simultaneously feeling nauseous, they had the wherewithal to realise that it must be CO; they opened all their windows and contacted the gas emergency service.

The inquest

At the inquest of Angela's death at Oxford Coroner's Court, a jury returned a verdict of death by misadventure after hearing that engineers were called out on numerous occasions. The jury heard that the valve adjustment caused the boiler to not work properly and there was evidence it was leaking toxic fumes. There were several faults with the boiler and its flue; it was mal-aligned and thus it collected condensation water that caused an obstruction; the air inlet was partially blocked with a collection of construction debris – screws, wall plugs and a plastic bag; there were loose screws at the top of the boiler which may have made it easier for combustion gases to escape into the flat, and there were gaps in the flue above the boiler.

No records of checks

We don't know why none of these failings were detected during the ten engineer visits but the Coroner, Dr Richard Whittington, did note that there were no records of any safety tests, checks or certificates on any of the visits. He also said he would be writing to British Gas, and that if a boiler was unusual, like the Powermax 155 in Angela's home, engineers should stop work and seek advice. He said that safety tests must be carried out and records kept and suggested that check lists should be completed by an engineer and customers given certificates stating their boilers were safe. British Gas spokesman Mark Duffell said the company would give the coroner's recommendations full consideration. He said: 'We would like to make it clear that all of our engineers have the most up-to-date equipment and we spend over £30m a year to ensure they are very thoroughly trained. We have strict operating procedures to very high standards and it is therefore disappointing and distressing to see that those procedures were not fully adhered to in this instance.'

We hope lessons have been learned

As a family, we hope that lessons were learned from Angela's death. There were so many opportunities for the faults to have been rectified, for Angela's symptoms to have been identified, or at least for the possibility of CO to have been discussed by either the gas or medical professionals. If it had, I am sure that Joanne or Angela would have installed a carbon monoxide alarm to EN 50291. They only cost about £15 and one would surely have alerted them before it was too late. This is why the family gives support to CO-Gas Safety. They continue to lobby for raised awareness among both the relevant industrial and medical bodies, but also throughout the general public. They also lobby for changes in the laws on landlords' gas safety checks and CO alarms. We can only hope that the recommendations they have been lobbying for since the 1990s are put into law sooner rather than later.

Michael Pinkney, Angela's brother.