

CO-Gas Safety Unintentional Carbon Monoxide Poisoning Case Study

FRANCESCA DINGLEY, Deceased in 2015



Age: 22

Fuel: Mains gas

Appliance & Location: Water heater in rented apartment in China

Notes by CO-Gas Safety: This case study is written by Francesca's father, Mark Dingley. The investigation into his daughter's death was very much complicated by the fact that it happened abroad, in accommodation arranged by her employer. Francesca and her flatmate, who was seriously injured in the incident, did not have a carbon monoxide alarm or detector and such incidents are probably more common in China and many other countries.

Francesca Dingley

Francesca had discovered a love for Asia when she studied in Hong Kong in 2013 as part of her Bristol University degree course, taking the chance whilst there to also visit Macau, Taiwan and the Philippines. In 2015, she was therefore over the moon to be offered the opportunity to teach English as a foreign language (TEFL) in Chengdu, China for one of the largest educational organisations in the world. The company has been operating since 1965 and has a presence in over 100 countries, most notably in China, Indonesia and Russia. We knew that they had arranged Francesca's accommodation in China, and that she had a flatmate, and I suppose that gave us a false sense of security about the quality of the apartment being provided. We were not aware of the dangers of carbon monoxide poisoning and I don't think we even knew that carbon monoxide detectors existed. This was simply not on our radar.

Settling in to life in China

Francesca had arrived in China in early January and shared an apartment with a fellow teacher. She completed her short teacher training course and began gaining teaching experience shadowing others working at the school, which was a franchisee of the company. Within a few weeks, she emailed to say that her flatmate had been fired and, rather than stay in the apartment on her own, she was going to move in with another teacher, Emily. By early February it was all arranged and Francesca told us that the new apartment was in an area where more of the other foreign teachers lived, so she was looking forward to it.

Hot water issues in new flat

Emily had moved into the flat in mid-January and Francesca joined her on 5th February. On the evening of 9th February they went out for dinner, grabbed some groceries on the way home and spent a couple of hours at home chatting and getting excited about the company's 50th birthday celebrations that were happening the next day. At around 11pm Francesca went to bed, while Emily tried to wash her hair in the bathroom. The school knew from the previous tenants, who had chosen to shower at the local gym, that there were problems with the hot water in the flat. When Emily had moved in a few weeks before Francesca, a member of staff from the school had shown her around the flat and said that you had to turn on the kitchen tap to get hot water in the bathroom. So Emily turned on the kitchen tap but the hot water failed to kick in, so she gave up and went to bed. Unfortunately, she forgot to turn the kitchen tap off.

The next morning, Emily got up as usual, doing yoga and meditation in her room for an hour before hearing the kitchen tap. She went into the kitchen and turned it off. She returned to her room to get ready for work, shut the door, but, feeling unwell, she lay down on her bed.

The girls are missed at work

The alarm was raised when neither of the girls arrived for work, or for the 50th birthday celebrations at lunchtime. Since no-one was able to get hold of them, a colleague went round to the apartment and found them both. Emily woke up in hospital, but it was too late for Francesca.

No safeguards in place or responsibility shown

Francesca's employment contract clearly stated that the appliances in the apartment, arranged by her employer, should be tested before new tenants moved in. The school rented it from a private landlord, and even the contract between those two parties stated that the equipment should be in 'a good, workable and safe condition'. When I questioned these procedures it seemed that there had actually been an inspection of the apartment by the landlord, the agent and an admin officer from the school – but they had only checked that items worked, not that they were safe! None of them had any knowledge of gas or electrical safety.

The landlord was supposed to show documentation to the school that the boiler had been maintained, but he never did. The fact that Emily had been shown how to turn on the kitchen tap to get the hot water in the bathroom shows that the school were aware that there was at least some sort of problem. If someone with gas experience had attended to that, they would have spotted the major problem that killed Francesca.

Faulty installation

The flue to the water heater was a tube that vented out through the kitchen, where the boiler was actually located. The tube went out through a hole in the kitchen window, but it was too large in diameter for the hole and so had been distorted to get it to fit through – this led to gaps all around, between the window and the flue. The tube was also cut too short on the outside of the window, so it was inevitable that gasses exiting it there would blow back into the flat through the gaps. The fact that the kitchen tap had been accidentally left on all night meant that the boiler had been running for hours and the fumes kept accumulating. If the flue had been installed correctly and up to Chinese regulations, it wouldn't have mattered how long the boiler was running for, the girls would have been safe.

Conclusion

The company has now introduced new health and safety protocols and provide all teachers in China with smoke and carbon monoxide alarms. However, we have been left utterly heartbroken... and it was all so avoidable.

Poor Francesca paid with her life for the company's new health and safety policy.