

John Courtney First Call Operative employed by an emergency service provider

Date of Incident: 22nd October 2010, 09.00hrs. Mount Stuart Square, Cardiff.

A typical autumnal day and with my apprentice on block release at college, I was looking forward to a break from the usual teenage issues!

First call of the day: Commercial property at Mount Stuart, “Gas escape in cellar, staff evacuated to outside in street”. Although commercial categories are slightly more complex than domestic, there was not anything particular alarming at this stage. Sometimes there are added notes like ‘fire service’ and or ‘police’ on site which would cause added concern.

On arrival, there were about 25 office staffs standing on the pavement by the main entrance. In line with Health and Safety procedures, and Gas Emergency Instructions this is what I would normally have expected. The Office Supervisor advised me of the circumstances involved and that several members of staff had complained of a smell of gas in the main entrance area. She also added that they thought it could be coming from the cellar.

Equipped with company issue Gas Detector and associated tools, I proceeded to enter the building. Almost immediately upon entering the cellar, my Gas Detector was recording low levels of gas (LEL), but not anywhere near explosive limits. The cellar was pitched in darkness, and with just my torch, it was difficult to locate the Gas Meter. From what I remember, the steps to the cellar were open plan. Consequently I took each step downwards slowly and deliberately to minimise losing my footing. Against a background of darkness, I was aware of a somewhat ‘breathy’ or ‘whistling’ noise from the right hand corner of the cellar. On further investigation I found a commercial floor mounted boiler. Its ‘poor picture flame’ indicated that it was not gassed correctly. When I stood up to resume looking for the gas meter, I felt slightly confused, disorientated and there was a sense of visual disturbance in my thought processes.

I remember thinking, “Don’t panic, don’t sit down, just get up those stairs into the fresh air” At this point my knowledge about CO kicked in. I want to make clear that this came from my own studying and not from my training. My movement to and climbing up the stairs seemed to be in slow motion, and I knew I had to just focus and keep going. For those of you with a technical background, my haemoglobin levels were not carrying sufficient oxygen into my blood. Continued exposure at this level would have certainly resulted in death or at least neurological damage.

Note by Stephanie Trotter

John is studying for a degree in German and English at the OU and is used to studying. He thought it was up to him to look up any dangers and therefore found out about the dangers of carbon monoxide. Employers would be extremely lucky if all their employees had the same attitude.

Fast forward, I managed to get outside and contacted Despatch for assistance. Almost immediately, the Fire Service and my Line Manager with other FCO’s arrived. My memory still cloudy and thought processes still disrupted were further distressed by a man hovering over me claiming he was a consultant who just happened to have a practice across the road. When the ambulance arrived to take me to the Heath Hospital, I could hear his “You haven’t got CO poisoning” ringing in my ears! On arrival at the Heath, I underwent standard oxygen therapy due to the high exposure of high levels of CO. This is applied through a tight fitting mask (normal air contains 21% oxygen). Not wishing to bore you with all the technical spiel, but basically, breathing in concentrated oxygen replaces carboxyhaemoglobin quickly. After approximately 6 hours undergoing this treatment, I was discharged. As I was exiting the hospital; a number of visibly red faced fireman were entering. I

recognised them as the same fireman who had earlier attended the incident at Mount Stuart Square. Apparently, they entered the cellar without breathing apparatus. Additionally, the CO levels in the cellar were exacerbated by blocked air vents at street level.

As the incident was on a Friday, I took the opportunity to recover and contemplate over the weekend. My overriding thoughts during that period were:-

1. How fortunate I am to be physically fit. I think most people would have probably just sat down for a few minutes if they had felt drowsy or disorientated (this would have been fatal).
2. Grateful that the emergency services and hospital staff responded so quickly.
3. My apprentice was not with me on that day. He is 6ft 3" and 17 stone. How would have I got him up those stairs on my own if he had been with me.

With the passage of time and experience, we are now equipped with CO Detectors to minimise future incidents. Continued focus on CO awareness by campaign groups is critical if we are to eliminate the estimated 40 deaths and 300 injuries per year.

John Courtney.

What CO-Gas Safety learned from this case

That First Call Operatives (FCOs) could die from CO when attending a gas emergency.

How to prevent such a death and reduce risk to other FCOs

Equip all FCOs with Personal Alarm Monitors for CO.

Did this happen?

Yes.

How?

Scotia Gas Network's FCOs had been equipped with Personal Alarm Monitors (PAMs) for CO since 2007 although Stephanie Trotter was not aware of this. On the 4th April 2014 Stephanie was allowed to make a presentation to the Gas Industry Safety Group and mentioned John Courtney's incident. Soon after the presentation, the other three Gas Distribution Networks (GDNs) followed by either providing FCOs with PAMs for CO or other similar equipment.

If you suspect carbon monoxide you are told to 'Open doors and windows, turn off gas appliances and leave the house. See your doctor immediately or go to hospital - let them know that **you suspect CO** poisoning. They can **do** a blood or breath test to check. **If you think** there is an immediate danger, call the Gas Emergency Helpline on 0800 111 999.' <https://tinyurl.com/yb6anfzk>

This means that by the time a FCO arrives at the premises there is very unlikely to be any carbon monoxide poisoning present for the PAM for CO to detect and the FCO is most likely to turn off the gas to the whole property. The appliance emitting CO is therefore not identified.

However, the ordinary Gas Safe Registered installer is not equipped with a PAM for CO, nor is a meter changer or installer of a smart meter. We have pointed out the risk to smart meter installers to DECC and then BEIS since 2011 and continue to do so. CO-Gas Safety's most recent meeting to make this point was on 24.01.18 and John Courtney, Paul Overton and Stephanie Trotter attended.

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