Ofgem

Consultation response by CO-Gas Safety to Gas Distribution and Price Control Review 2 (GDPCR2)

Introduction

CO-Gas Safety is an independent registered charity run almost entirely by volunteers. The charity was launched by victims of carbon monoxide (CO) poisoning in 1995 at the House of Commons. The charity has cross party support at the House of Commons and European Parliament. The charity works to try to reduce deaths and injuries from CO and other gas dangers (see website www.co-gassafety.co.uk). CO can be emitted from any faulty cooking or heating appliance powered by any fuel that burns (e.g. gas, coal, oil, wood, petrol etc.).
CO cannot be sensed by human senses. Less than 2% can kill in less than two minutes (see http://www.hse.gov.uk/foi/internalops/hid/spc/spctosd30 pdf see attached Document 1 para 74 table 23 in red). Please note that CO is not the only toxin in fuel emissions see http://www.co-gassafety.co.uk/other_toxins.html

Response to GDPCR2

We note that in your letter key issues of the review are, as we see them, as follows:-
1. Page 2 of 21.Customers pay about £120 per year for the provision of the gas distribution networks (which accounts for about 15% of the average customer's bill). We have just been informed that of this £120, £6 (5%) is for the call out to the emergency service but not the actual repairs, which is a further £6. As I don't recall ever calling out the gas emergency service to my home, this seems quite a lot for every customer's bill every year. How many call outs are there? Presumably though, this information is supplied by the gas emergency service itself, not by anyone independent.

2. Page 3 of 21 '*Environmental issues*
Leakage from the gas networks accounts for the vast majority of the companies" greenhouse gas emissions.' Gas Distribution Networks, 'GDNs are currently incentivised to reduce leakage, with their performance assessed through a modelled approach. Ofgem will consider whether this assessment can be improved, including whether shrinkage should be calculated in a similar way to losses on the electricity distribution networks (using actual settlement data) to provide a clearer incentive on the GDNs to tackle this issue.'
We think this means leaks of natural gas from the supply pipes. If so, the smell inserted into the pipes in order that leakage is detectable was allowed to be halved some years ago. Perhaps it should be doubled?
Also, we are concerned about the other toxins in gas (see http://www.co-gassafety.co.uk/other_toxins.html and see particularly the USA's Environmental Protection Agency document http://www.epa.gov/ttn/chief/ap42/ch01/final/c01s04.pdf). CO-Gas Safety has been assured by a test house that these other toxins (such as mercury, manganese, copper, arsenic chromium, cadmium, barium, nickel) are in tiny amounts in gas. However, leaks from gas supply pipes could be large and these toxins would presumably build up in the environment and in people exposed to gas both indoors (where they spend the most time) or even outside.
With regard to exposure indoors there is exposure from leaks of gas from the pipes and also exposure to the products of combustion (e.g. from a flueless gas cooker in a small kitchen). We have pressed for either the release of research done by the gas companies where an appliance is not burning efficiently (appliance needs servicing, partly blocked flue or flueless appliance) or for research to be undertaken (Lord McKenzie May 2009) to see if such toxins build up in (e.g. a small kitchen) and in the body fat over weeks, months and years.

3. Page 3 of 2
'Carbon monoxide
GDPCR1 considered whether GDNs could do more to help reduce the number of deaths and injuries caused by carbon monoxide (CO), either by increasing consumer awareness of the dangers or by reviewing their gas emergency operating practices and procedures. Some progress has been made but we will continue to encourage GDNs to bring forward cost effective proposals that will help to reduce CO poisonings.'

The Gas Safety (Management) Regulations 1996 Regulation 7 contains the duty to prevent gas escapes and emissions of CO.
'(6) Where a person conveying gas in a network has reasonable cause to suspect that gas conveyed by him which has escaped has entered, or may enter, any premises, he shall, so far as is reasonably practicable, take all the steps necessary to avert danger to persons from such entry.'
'17 (b)any reference to an escape of gas from a gas fitting includes a reference to an escape or emission of carbon monoxide gas resulting from incomplete combustion of gas in such a fitting;'
CO-Gas Safety submits that under this duty 'to take all steps necessary to avert danger' from CO as well as gas, the Gas Emergency Service should have been carrying and using equipment to test appliances and the air for CO since 1996. We appreciate that the duty is only 'so far as is reasonably practicable, take all the steps necessary to avert danger to persons from such entry' but how can this duty be said to be fulfilled when no equipment, which can sense a deadly gas, (which cannot be sensed using human senses), has been, is or will be used?

We ask that Ofgem and HSE (The Health and Safety Executive) consult their lawyers about this issue and we look forward to receiving their legal opinion on this matter as soon as possible.

CO-Gas Safety has been lobbying for the Gas emergency service to carry and use equipment to test appliances for carbon monoxide (CO) since at least 1996. In 2000, the Health & Safety Commission (now Executive) recommended that the gas emergency service carry and use equipment to test appliances for CO. This was as a result of an exhaustive gas safety review with the majority of the stakeholders (mainly industry) in favour of this recommendation. This was not implemented by Government.

A work group was set up by Ofgem in April 2008. A leaflet was produced warning about carbon monoxide. At a meeting on the 21st September 2010, we were told that these leaflets are not produced in Braille nor are they in other languages – why not? About a year after the first work group, the GDNs were told to come up with suggestions. This took a further year and the suggestions are, in our opinion, minimal and what is even worse is that they are still only proposals.

The only real action has been by Scotia Gas, (one of the emergency service providers), which has equipped its personnel with Personal Alarm Monitors (PAMs) not only for natural gas but also for CO. The data gathered by Scotia Gas would be extremely helpful but has not been released. We doubt it ever will be released, as it is owned by Scotia Gas. Surely this research should have been done by HSE in order that it could be published?

However, informally we have heard the following about this project.

1. That the Scotia Gas operatives would now refuse to accept PAMs, which detect natural gas only, due to the protection that PAMs, which can also alarm for CO provide for the operatives when entering properties to deal with emergency escapes of gas and CO. Those operatives without such equipment, but who are in the course of their work and therefore in their workplace, are being exposed to unnecessary risk from CO. HSE should be acting to protect them and also the consumers affected. Why isn't HSE taking action.
2. That numerous incidents of CO have been found.

This does not surprise us because research by University College London UCL (attached Document 2) has found that in 2006

(a) 23% of homes had one or more defective gas appliance;
(b) 8% of homes were judged to be at risk of dangerous levels of CO; (equates to about 4.5 million people in the UK) added by CO-Gas Safety.

Examining the redacted copy of the contract with National Grid, we have just received after a Freedom of Information (FOI) request to HSE, it seems totally ridiculous to us that there is so much in this contract about work to identify the appliance emitting CO* without actually doing this properly, because of course this can't be done with any degree of accuracy without using equipment to test for this deadly gas, which cannot be sensed using human senses.

For example:-

Page 3 of 33 1.8 5 'Establish whether there are any fumes (including escape of Carbon Monoxide (CO) into the room), and if it is possible to identify the appliance.

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1.7 Procedure when Identifying and Dealing with Carbon Monoxide (CO) / Fumes.

1.81 FCO's (please note that a FCO is a First Call Operative) undertake site activities relating to CO / Fumes, as a result of three scenarios:

1. A consumer reporting an activated CO alarm to the Emergency Call Centre;
2. Response to an internal PRE (Public Reports of gas Escapes) which is determined, following site investigation, to be CO / Fumes related;
3. Response to an Emergency Services or HSE request for assistance.

1.7.1 On Site Activity – Immediate Action

1.82 When an FCO attends an emergency situation related to CO / Fumes, and site investigation reveals that the occupants safety is at risk due to fumes, or persons have been overcome by fumes, the FCO:

1. Ventilates the property;
2. Performs a visual inspection of the existing installation and appliances to check for signs of CO / Fumes within the property. Such signs may include:
   - Signs of spillage (soot, vapour marks etc.). 'Spillage' means that the products of combustion (e.g. smoke from a fire) escape into the property.
   - Safe operation (flame picture). A flame picture means that the flame should be blue and not yellow for example.
   - Any indication of an unsafe situation. Possibly anything from soot or staining to someone unconscious. (Notes in black in 2 have been added by CO-Gas Safety to explain things that might not otherwise be understood.)

1.83 Further action is taken dependant upon whether CO/Fumes are established or suspected.

1.84 In cases of actual or suspected fumes the National Grid Gas CO leaflet is left with the consumer.'

1.7.2 On Site Activity where Carbon Monoxide (CO) / Fumes Present

1.85 Where evidence of fumes is identified (e.g. Sooting or signs of staining on or around the appliance) or the appliance meets any of the criteria set out in the "Industry Unsafe Installations Procedure" (Ref 13.19) then the appliance is deemed to be Immediately Dangerous (I.D.)

The First Call Operative makes the situation safe by:

1. Explaining the situation to the user/responsible person.
2. Advising that the appliance/installation is dangerous to use, and informing the user/responsible person that it is an offence to continue using the appliance/installation until it has been checked by a competent person.
3. Explaining that it must be disconnected until a competent person has rectified the defect and provide details of the Appliance Help line and telephone number
4. Attaching an IMMEDIATELY DANGEROUS warning label to the appliance in a prominent position.
5. Completing a warning notice and asking the user/responsible person to sign it as a record of receipt.
6. Giving a copy of the Safety Notice to the user/responsible person and associated safety advice.
7. Disconnecting and sealing the gas supply to the appliance/installation.
8. Completing National Grid Gas documentation and records and advising Operational Support that the job is complete.
9. At properties where a landlord owns the appliance/installation in question, efforts are made to ascertain the landlords name and address, which are then recorded on the Safety Notice.

1.7.3 On Site Activity Where Appliance Creates A Risk To Life Or Property - (At Risk)

1.86 In situations where an appliance/installation if operated, may lead to a situation, which could create a risk to life or property, or the appliance meets any of the criteria set out in the "Industry Unsafe Installations Procedure" (Ref 1.19) then the appliance is deemed At Risk (AR).

1.87 There is no specific requirement to disconnect an At Risk appliance/installation, however it will be made safe. The FCO carries out the following actions:

1. Turns off the appliance/installation.
2. Explains the situation to the user/responsible person.
3. Advises that the appliance/installation may become dangerous if used and that further use would contravene the Gas Safety (Installation and Use) Regulations 1998 (Ref 13.28).
4. Explains that it must be turned off until a competent person has rectified the defect and provides details of the Appliance Help line and telephone number.
5. Attaches a 'DO NOT USE' – Unsafe Appliance warning label to the appliance/installation in a prominent position.
6. Completes a Safety Notice 'This Notice Concerns Your Safety' At properties where a landlord owns the appliance/installation in question,

efforts are made to ascertain the landlords name and address, which are then recorded on the Safety Notice.
7. Ask the user/responsible person to sign it as a record of receipt. If the user/responsible person refuses to sign the Safety Notice this fact is recorded on the Safety Notice and the ||||||||| system via the FCO's GoBook.
8. Hand over a copy of the Safety Notice.

1.7.4 On Site Activity Where Carbon Monoxide (CO) / Fumes Cannot Be Identified

1.88 Situations arise where fumes cannot be identified, and the appliance does not meet the ID or AR criteria set out in the "Industry Unsafe Installations Procedure" (Ref 13.19) but the FCO cannot confirm that an appliance or installation is operating correctly (or the property owner/occupier has a concern). In such circumstances the appliance or installation is referred to as a "Concern for Safety" (CfS). Although there is no specific requirement to disconnect a CfS appliance or installation, the FCO must:

1. Explain the situation to the user/responsible person
2. Advise that the appliance/installation may become dangerous if used
3. Explain that it must be turned off until a competent person has rectified the defect and provide details of the Appliance Help line and telephone number
4. Turn off the appliance/installation
5. Attach appropriate warning labels to the appliance in a prominent position
6. Complete and issue a warning notice, with associated safety advice
7. Ask the user/responsible person to sign it as a record of receipt
8. Record that a Concern for Safety situation exists together with the action taken
9. Complete National Grid Gas documentation and records, and advise Operational Support that the job has been completed.
10. At properties where a landlord owns the appliance/installation in question, efforts are made to ascertain the landlords name and address, which are then recorded on the Safety Notice.

1.7.5 Carbon Monoxide (CO)/Fumes Incident Reporting

1.89 When a CO incident occurs involving death or major injury due to CO poisoning, the FCO attending the incident reports the details to the Operational Support Team Leader who raise an Incident Report and forward a copy of it to the responsible Shipper, HSE (local and national). Where records indicate that National Grid Gas is not the GT, Operational Support will fax the details of the incident to the relevant GT only.

1.7.6 Carbon Monoxide (CO) Detectors

1.90 Where a CO alarm has been activated the FCO is trained to initially ignore the alarm and carry out a detailed independent investigation of the site circumstances. The occupier is questioned to establish whether symptoms of CO poisoning are evident.

Please note that we find the last paragraph somewhat confusing. Is the emergency service provider given some medical training, because CO is peculiarly difficult for

doctors to diagnose, because different members of the family even exposed to the same amount of CO, can exhibit different symptoms; for example, typically the wife might have a headache, the little girl might have a tummy ache and perhaps an upset stomach, the little boy might be fine because he is out for most of the time playing football and the husband might just seem to be in a bit of a bad mood. This, from our considerable experience of talking to families suffering from CO exposure, is typical. The late Dr. John Henry, Professor of Accident & Emergency sent symptoms of CO to 200 GPs asking for suggested diagnoses; not one GP suggested CO.

We have over the years delivered examples to National Grid (when it was the only emergency service provider) where the safe appliance had been suspected of emitting CO and turned off, while the dangerous appliance was left working exposing the householders to CO. We also delivered examples of where CO was suspected but where the gas was turned off in one property, while the CO continued to be emitted from another house or flat.

Without identifying the source of the CO, how can a consumer be made safe?

What is interesting in the redacted contract details is that attempts are made to identify the source of CO, which cannot be sensed using human senses, by using human senses and not by using equipment to sense CO!

In almost all emergency situations that we come across in newspaper cuttings etc. (we collect data from many sources), it is now the Fire Brigade that is called out because they have breathing equipment and equipment to test for CO. The gas emergency service is beginning to look ridiculously old fashioned and in our opinion, it is obviously exposing its operatives and gas consumers to unnecessary dangers.
We have even heard recently that Environmental Health Officers are being equipped with equipment to sense CO, yet the gas emergency service which has a duty to stop a gas escape including CO, has no equipment. Surely this cannot continue?

The costs of providing extra time and equipment can be claimed back and basically charged to the consumer. CO-Gas Safety would support this and has always supported this.

Why is the gas emergency service continuing to expose its own employees and gas consumers with regard to such a deadly gas?

Stephanie Trotter, OBE President & Director of CO-Gas Safety 2010