**APPCOG – Carbon Monoxide – FROM AWARENESS TO ACTION**

January 2015

<http://www.policyconnect.org.uk/appcog/sites/site_appcog/files/report/425/fieldreportdownload/appcogreport-cofromawarenesstoaction.pdf>

<http://www.policyconnect.org.uk/appcog/research/inquiry-behavioural-insights>

CO-Gas Safety is grateful to be supplied with the recommendations in a word document so that we can comment on each recommendation.

**Recommendations in black. CO-Gas Safety comments in blue.**

**Recommendation 1**

The Department for Communities and Local Government should second a full-time

staff member to coordinate activity within the department for carbon monoxide, and

to provide the Cross Government Group on Gas Safety and CO Awareness with a

dedicated person to lead and promote coordination of activity and resources.

An excellent recommendation which CO-Gas Safety fully supports. It would be helpful if this person’s name and contact details were published and generally available to all.

**Recommendation 2**

The Cross Government Group on Gas Safety and CO Awareness should develop and

adequately resource a coordinated data strategy for carbon monoxide incidents,

impacts and responses, to be led by Public Health England and coordinated with

current industry, academic and other efforts.

CO-Gas Safety also supports this recommendation especially ‘adequately resource’. However, how is this proposed to be accomplished?

Data from victim groups should also be included and hopefully funded where this is needed to continue this valuable work. Victims are a valuable research resource which has been overlooked or ignored. Victims and their families almost invariably want to help prevent future tragedies and know more about the details of each incident than almost anyone else. In our experience of talking to victims and families, they spend a good deal of time thinking about how the tragedy could or should have been prevented. Talking to people about this can also help victims and families come to terms with their loss. Obviously their views need to be checked but that is not hard to do because there are usually others to ask who can inform if there are any discrepancies. Also if a body such as CO-Gas Safety hears the same problems again and again from different victims and families over a long period of time, this repetition provides its own proof. Of course there does have to be a considerable amount of work done by someone to gather such evidence. At the moment this is certainly done by CO-Gas Safety in order to inform its opinions of needed safety measures. The only difficulty CO-Gas Safety has encountered is disbelief by people unwilling to check CO-Gas Safety’s information which it is very willing to have checked and to admit to mistakes and apologise.

Fire & Rescue Services, due to their status as trusted messengers, and with success

in other areas of their work, should be enabled to take on a more prominent role by

increasing their CO safety remit. Working closely with Gas Distribution Networks and

other partners, Fire & Rescue Services can use local knowledge of an area to tailor

CO safety campaigns, and target those different characteristics within each area.

Data collected by Fire & Rescue Services should also feed into a central hub, with

consideration of technological advances and opportunities.

CO-Gas Safety supports this recommendation. The main problem is the failure to treat the place where the poisoning took place as a ‘crime scene’. There needs to be an agreed protocol imposed and people to test appliances for CO.

It is far safer to test appliances and homes than to test survivors who may have been in the fresh air for long enough for the CO to have disappeared from their blood or breath. Indeed there are huge dangers of false negatives when testing survivors & people being sent home and told to keep warm.

 In our experience, fire fighters sometimes do register CO in a variety of ways but do not usually find the source or identify how many parts per million of CO the householder was exposed to. Nor are they registered gas installers. Such information is crucial for treatment and proof.

There is a further problem because householders etc. are not poisoned by CO alone but by CO+ (other products of combustion) which are not tested for and no CO alarm or CO analysing equipment is designed to alert.

**Recommendation 3**

Data on carbon monoxide levels and incidents should be collected and shared, with a

central hub approved through Ofgem supplier conditions, building on existing purely

incident-based data. To enable this, alarm and data collection standards should preempt

the large amounts of data soon to be recorded through ‘smart’ homes, and a

framework for pooling this with input from academia should be created. Public Health

England, with a remit to cover incidents involving all fuels, should be involved in the

population-level data work.

We will comment on the first sentence above first.

This is easier said than done.

CO-Gas Safety has collected, collated and **published** its 19 data and injuries/near misses from unintentional CO every year, now 20 years on its website.

We have been lobbying the GDNs to do the same for several years but so far we have not received anything meaningful from them and we do not think they have agreed to exchange data between themselves, let alone provide this data to us, let alone publish. We hope progress will be achieved on this very soon.

With regard to data from smart homes we agree. However, at the moment it seems that smart meters will not be sensitive to CO. More worrying than this is that the meter changers will not be protected from CO when they visit a home and change the meter. We find this scandalous and have pointed this out endlessly at every opportunity to DECC but been ignored.

First Call Operators for the GDNs acting as the gas emergency service all have some protection now (PAMs or Gasco seekers for CO) yet they are not usually exposed to CO because the consumer is told to turn off appliances and open the windows when the consumer rings to ask for the emergency service. This does NOT apply to meter changers as far as we are aware. We sincerely hope that no meter exchanger dies of CO as a result of not being properly equipped for his or her personal safety.

**Recommendations 4 & 5**

- The Fire and Rescue Services Act 2004 should be amended to include a statutory

requirement for Fire & Rescue Services to include carbon monoxide safety in their

work.

- Fire & Rescue Services should nationally coordinate their data gathering and carbon

monoxide prevention activities through the Chief Fire Officers Association, building

on current incident-information gathering, and making it available to researchers,

public health professionals and other data portals (see Recommendation 3).

Currently, various bodies, charities and groups each use slightly different branding for

CO campaigning. The provision of a single icon, with a set of key messages, building on

the example of ‘Fire Kills’, will allow ease of use and recognition by the public.

We agree with this recommendation and support it but again this has been suggested endlessly over the years and the mere provision or use of a single icon is not enough, as COCAA amply demonstrated. There needs to be **adequate** **funding** for this to be successful and funding is always lacking.

Why didn’t this recommendation call for a voluntary levy on the fuel industry to accomplish this and if that failed, a Government levy to be imposed as was recommended by the Health & Safety Commission (now Executive) in 2000?

**Recommendation 6**

A single, coordinated carbon monoxide campaign brand, messaging, and set of

materials should be developed and made freely available for use through a national,

central portal. This could be related to a government department or a relevant

emergency service such as Fire & Rescue, and should be coordinated with industry and

charity campaigning efforts through the Carbon Monoxide All Fuels Action Forum.

We repeat our comment immediately above in blue.

With regard to the All Fuels Action Forum in our opinion this needs proper funding to achieve anything because without funding, the Forum is unable to take action and is merely a talking shop. Some action that did not need funding may have taken place but obviously there is a huge need for much more to be done, e.g. prime time TV warnings.

In our opinion, the Forum also needs to be less industry dominated and keener to take real action which is what victims and victim groups want.

Domestic Appliances and Environments

The range of appliances used in the domestic environment each pose unique CO

risks due to the different interactions people have with them. Natural gas boilers,

despite being the best-known source of CO risk, have been responsible for decreasing

numbers of incidents in recent years. Other sources, including gas cookers and wood

burning stoves, pose new risks which may not be as well recognised, and require extra

consideration by relevant bodies.

CO-Gas Safety agrees with this recommendation and supports it completely as our data collected so far, (however many deaths are missed), shows that, per user, gas seems safer than other fuels.

The context of ‘home’ is very important when considering behaviour – targeting safety

measures is difficult due to the unpredictable nature of people’s behaviour in their

home environment. Reflective of this insight, some social housing providers have

decided to minimise CO risk by replacing gas appliances with electric.

In CO-Gas Safety’s opinion it was often the gas cooker belonging to the tenants privately that caused the CO emissions so replacing with electric (as suggested by us at that meeting at the House of Commons about Hackney Homes but ignored and not put in the minutes), is a sensible way forward.

Additionally, energy behaviours are highly habitual and difficult to change. An effective method of

creating and reinforcing a repeated behaviour, such as annual servicing, is by linking it

to other behaviours. Associating these with a consistent servicing date, or a reminder

service, could help ensure servicing is done at the correct time. Consistent servicing

dates would be of particular use for the social housing sector, where access to the boiler

that requires servicing is a particular challenge.

The regular servicing of properly installed appliances by a competent person will act

as the best method in preventing CO production at source. All campaigning and advice

given to reduce CO poisoning incidents should promote a ‘belt and braces’ approach of

proper appliance use and servicing, along with the installation and use of BS EN 50291

Standard-compliant CO alarms as a vital back-up.

CO-Gas Safety agrees completely but following on from the comment about the tenants’ own gas cookers, it would be sensible for landlords to insert a clause into the tenancy agreement that no privately owned carbon fuelled appliances are to be used inside the rented property or outside, under cover or within, say 10 feet of the property.

A study by Hackney Homes/ Public Health England revealed that even within a fully

serviced housing stock, CO risk remained in a relatively large number of properties.

A lack of similar studies has led to difficulties in national-level comparison; however

the large number of alarm activations makes it clear that the provision of Standard compliant

CO alarms is an important intervention for the housing provider to make.

CO-Gas Safety agrees. This information requires detailed research to find out exactly why CO risk remains. We think a large number are due to the fact that tenants bring in privately owned carbon fuelled appliances but there are other possible factors such as the failure of flues, lack of sweeping, negligence of registered installers, lack of ventilation and possibly wrong regulations to consider.

**Recommendation 7**

Building Regulations should be amended to require social housing providers to fit

and maintain Standard-compliant carbon monoxide alarms wherever a fuel burning

appliance is installed, and providers should commit to replace fuel-burning appliances

with lower-risk versions in certain vulnerable situations.

CO-Gas Safety agrees and fully supports this but why not require landlords of all rented property to fit CO alarms to EN 50291? Why wasn’t there a call to amend the law to amalgamate the landlord’s continuing duty to keep the gas appliances in a safe condition with the landlord’s duty to undertake a gas safety check? This would provide clarification and improve safety.

 **Recommendation 8**

The Gas Safety (Installation and Use) Regulations 1998 should be amended to

introduce MOT-style (13-month validity) appliance servicing rules, allowing the same

service date to be used annually.

Multiple mechanisms now exist for the energy sector to better serve vulnerable

customers. Targeting fuel-poor households with CO safety measures, such as gas safety

checks and CO alarms, will protect those energy customers most at risk of fuel poverty,

and potentially CO poisoning. The increasing air-tightness of homes, while welcomed

in the context of energy efficiency, may inadvertently cause increased risk from CO.

CO-Gas Safety agrees but in our opinion, prime time TV warnings about CO and the need for proper regular servicing etc. has not been tried first. Our inclination is to see if this would produce results before pursuing a more draconian approach. Furthermore, there is a risk of lack of enforcement. Also CO does not only kill or affect the poor – the rich are vulnerable too.

Perhaps if there was greater awareness medics might also consider CO, which at the moment they generally do not. See <http://www.mirror.co.uk/news/real-life-stories/thought-early-dementia-three-years-5930721>

**Recommendation 9**

Ofgem’s Consumer Vulnerability Strategy should include within energy supplier

Priority Services Register requirements, the provision and installation of Standard compliant

carbon monoxide alarms for vulnerable customers.

CO-Gas Safety supports this but also considers that the energy suppliers could do a great deal more generally and not just for the ‘vulnerable’ – all are vulnerable to CO. The problem for Ofgem is that HSE does not make it clear that CO is a safety issue of great public concern. If only HSE would take this step, then Ofgem would be able to act with regard to the gas suppliers. In our opinion HSE needs to be approached by all concerned. We have tried many, many times and been ignored. We implore APPCOG to do this and also to appeal to the fuel industry and particularly the wealthy gas suppliers and manufacturers.

**Recommendation 10**

The UK Government should introduce a boiler replacement scheme with a view

to Green Deal energy efficiency measures, tied in the first instance to the energy

supplier Priority Services Register to target the most dangerous appliances in the most

vulnerable situations.

CO-Gas Safety supports this recommendation. Our data shows that boilers are the most serious offender with regard to deaths from unintentional CO (24%) with room heaters next at 17%.

**Recommendation 11**

The Department of Energy and Climate Change should ensure that results and

recommendations emerging from research into the risks associated with increased

air-tightness of homes are appropriately incorporated into Green Deal assessments and

guidance.

CO-Gas Safety supports this recommendation but more funding is needed for research. Why is there no call for funding?

**Recommendation 12**

An ‘Innovation Standard’ for carbon monoxide alarms should be created, allowing

flexibility within existing rules without compromising safety, to encourage the design of

novel carbon monoxide detection applications.

Alarm provision needs to be combined with education on the purpose and importance

of the equipment, and in some cases, installation. Free giveaways of alarms have led to

some remaining unused, ignored or unfitted.

CO-Gas Safety agrees. Why was £3.2 million provided from public funds to publicise and buy smoke and CO alarms for landlords with regard to the Smoke and Carbon Monoxide Alarm (England) Regulations 2015\* when some of that funding could surely have been spent on prime time TV warnings and perhaps research?

\*[**http://www.parliament.uk/business/publications/hansard/lords/todays-lords-debates/read/grandcommittee/934/#c934**](http://www.parliament.uk/business/publications/hansard/lords/todays-lords-debates/read/grandcommittee/934/#c934)

**Recommendation 13**

Providers of ‘Home Care Plans’ of annual heating system servicing and maintenance,

should include carbon monoxide alarms as a ‘default’ option within each package.

CO-Gas Safety supports this. However, CO alarms although really helpful particularly with regard to saving lives are not in our opinion the whole answer. Education is also vital, for example Roland Wessling and Hazel Woodhams both knew all about CO and had done the right things at home and had a CO alarm. However, that didn’t mean they knew they should not put a cold to the touch used barbecue inside the tent. As a result of this lack of knowledge Hazel sadly died and Roland nearly died and was injured. This is why leaflets (see ours which can be downloaded from <http://www.co-gassafety.co.uk/resources/leaflet-about-carbon-monoxide-poisoning/> )and more vitally, prime time TV warnings and other educational measures (e.g. our CO Awareness competition for primary school children) are so important to prevent people suffering from CO in the first place or suffering CO at low levels over a long period of time (which would not set off a CO alarm) or suffering from the other products of combustion, which a CO alarm is not designed for.

**Recommendation 14**

Carbon monoxide alarm manufacturers, in line with an updated alarm Standard,

should simplify alarm installation instructions, and include cartoons and single-page

checklists for easier interpretation of fitting.

Improvements in detection technologies also provide two other key areas of

opportunity to promote CO safety; connected alarm and home appliance systems, and

increasing data-recording which could contribute valuable information for CO safety related

work (see Recommendation 3).

Medical and healthcare professionals have a vital role to play in the detection, diagnosis

and treatment of CO poisoning incidents, as well as the prevention of further incidents.

At the same time, the difficulty of diagnosing CO poisoning is well recognised, as is the

recognition that official mortality and morbidity statistics underestimate the number of

people affected by CO poisoning.

CO-Gas Safety supports this and has already commented on medics etc. Medics are not trained in CO and CO is very difficult to diagnose.

**Recommendation 15**

Public Health England and the Department of Health should review the effectiveness

of existing tools used by medical and healthcare professionals for approaching carbon

monoxide issues with specific groups, such as algorithms for midwives, with a view to

identifying and developing further examples.

CO-Gas Safety agrees and supports this.

The real problem however is not the algorithm but the lack of access to properly qualified gas safe registered installers who can test gas appliances for CO. It is obviously vital for safety to identify where the CO is coming from and ideally for treatment and proof it is important to prove how many parts per million of CO is being emitted or indeed none.

To find someone to test gas appliances for CO and provide Parts Per Million of CO to the consumer the consumer has to:-

1. Access the Gas Safe Register website <http://www.gassaferegister.co.uk/>
2. Click on advanced search. What consumer would know how to do this?
3. Put in post code.
4. Search for firms offering ‘fumes investigation’. Why would a consumer know this?
5. Contact said firms and ask if they employ someone qualified under CMDDA1. If so, ask for their name and check under the GSR. Ask also how much it would cost to test appliances for CO and give PPM of CO in writing.
6. When that person turns up the consumer has to check to make sure it is the person with the qualification CMDDA1.

We have not yet found a consumer able to do this although the Gas Safe Register has told us they will help by telephone. The GSR has refused to change this. The HSE has also refused to deal with this.

There is an even worse situation with regard to testing appliances powered by other fuels as we do not think there is an equivalent to CMDDA1. Then there are the other toxins in the products of combustion (see <http://www.co-gassafety.co.uk/about-co/other-toxins/> )

**Campsite and Boating Environments**

The environments outside of the home in which CO poisoning incidents occur, such as

campsite and boating environments, need to be addressed separately from the home

context. Campaigning to improve CO awareness and safety in these environments can

be a real challenge, especially as the consumer may be in such an environment only for

a short time. They may also bring with them a ‘holiday mind-set’ that entails different

attitudes to risk than when in the home environment.

Multiple high profile fatal incidents in recent years have highlighted the danger of

disposable and other portable barbecues and camping stoves being used or kept inside

tents. Clearer risk information, segregated cooking areas and the provision of alarms

are all safeguards for campsite CO safety. Ensuring suitable alarms are readily available

and clarifying the recommended action following alarm activations are all important

actions, especially with increasing advisory messages to carry CO alarms on holiday.

CO-Gas Safety agrees with this recommendation. We are also concerned with the other products of combustion in barbecue lighting products and barbecue fuel.

**Recommendation 16**

All campsites should provide isolated, clearly marked areas for barbecue use and

disposal.

CO-Gas Safety agrees with this recommendation

**Recommendation 17**

All recreation parks should offer suitable carbon monoxide alarms to purchase, or

loan for the duration of stay. These could include those developed through a new,

‘Innovation Standard’ to ensure optimal performance in these environments.

CO-Gas Safety agrees with this recommendation

**Recommendation 18**

Carbon monoxide alarms should display clear ‘next steps’ following an alarm

activation, either on a fold-away area or on the external casing, including moving to

a ventilated area and calling a relevant emergency service. These instructions should

differ for ‘outdoor environment’ alarms designed through a new, ‘Innovation Standard’.

Large, temporary accommodation areas such as those at festivals contain many

different locations of CO risk, including tents, caravans, catering vans and so on. A

single warning symbol or icon (see Recommendation 6) would be a valuable trigger in

people’s minds to improve safety in these environments, to unify and simplify warnings

around recognition of the symptoms of CO poisoning.

CO-Gas Safety agrees with this recommendation. It would also be helpful to coordinate this symbol with prime time TV warnings.

**Recommendation 19**

Public Health England should commission and support a study of low-level carbon

monoxide exposure in leisure and recreation environments, similar to those

undertaken in homes by Liverpool John Moores University.

CO-Gas Safety agrees with this recommendation but points out that the other products of combustion should also be tested for.

**Recommendation 20**

Festival organisers should ensure that staff receive carbon monoxide promotional

material and information during training, to enable them to act as trusted ‘safety

ambassadors’ internal to the festival population and create a multiplier effect of safety

awareness. Ambulance and medical staff at each festival should be a part of this

process.

Boats, used for either leisure or professional activity can provide a high-risk

environment for CO poisoning. Engines and/or cooking and heating equipment often

produce the gas in close proximity to confined habitable quarters. Boat users may not

be responsible for the maintenance regime of fuel-burning appliances on board, and

may be using the boat only temporarily or for leisure purposes. Detection therefore

becomes increasingly important as a line of defence against CO poisoning.

CO-Gas Safety agrees with this recommendation.

 Again wouldn’t prime time TV warnings be ideal to assist with this?

**Recommendation 21**

The Maritime and Coastguard Agency, in line with the 2014 ‘Eshcol’ Marine Accident

Investigation Branch Report, should include in the Code of Practice for the Safety of

Small Fishing Vessels a requirement for a Standard-compliant carbon monoxide alarm

to be fitted in the accommodation on all vessels. Similar requirements should be carried

over to vessels used on inland waterways, including those for hire and other purposes,

regardless of the fuel type used on board.

CO-Gas Safety agrees with this recommendation.