

# Minutes of Meeting

Document No CO-1458-19

Subject	<b>CO Sub Group</b>	Circulation	All members
Date	26 <sup>th</sup> Feb 2019	Circulation Date	15 <sup>th</sup> March 2019
Location	CoGDEM offices Hitchin	Circulation by	Website & email

## Attendees

Leigh Greenham - CoGDEM  
John Saffell - Alphasense  
Richard King - Honeywell Analytics  
Mike Byrne - Ei Electronics  
Arthur Burnley - Alphasense  
Andy Curtis - CoGDEM  
Andy Speake - Aico  
Doug Longstaff - Dräger  
Stewart Davison - Gas Tag  
Chris Hole - TTP  
Jason Perrins - FireBlitz  
Paul Rennie - Kidde Safety  
Peter Philpott - TPI  
Paul Basham - Crowcon  
Jonathan Gilby - HH60 Consultants  
Masahiro Uehara - New Cosmos  
Kazuaki Watanabe - Figaro Engineering  
Yuki Fujimori - Figaro Engineering  
Mike Murley-Hughes - Testo  
John Darby - City Tech  
Gary Fairhurst - Kane International  
Steve Cork - CSA Sira  
Kevin Milesen - GES  
Adrian Keats - Honeywell Analytical  
John Walsh - FireAngel Technology  
Tony Banfield - EXL/31/1 & TC216 chair

## Apologies

Michael Wright - Aico  
Peter Murphy - Ei Electronics  
Andrew Keenan - CSA Sira  
Ian Ballinger - FireAngel Tech  
Theresa Berry - City Tech  
Michael Hemingway - HSE/HSL  
Richard Hallam - Codel  
Rob Lyon - Playfair Marketing

## Agenda:

- 1) Apologies and member introductions
- 2) Approval of previous minutes and matters arising
- 3) Lobbying activities (inc. All Party Parliamentary CO Group, Building Regs & PRS)
- 4) Publicity update (inc. Europe, Holland, France and UK PR project, Which?, UACO)
- 5) CO alarms standards review (inc. Brexit effects)
- 6) Flue Gas Analysis (inc. CO2 test results, interest by HHIC, update to EN 50379)
- 7) Electrochemical toxic gas sensor lifetime testing
- 8) AOB (inc. BSS boat project, HSE hydrogen update, pre-AGM dinner)
- 9) Dates of 2019 meetings – Tues 11 June 2019 (AGM), Tues 22 Oct 2019

### 1 Apologies and member introductions

Dr Mike Byrne (Ei Electronics) chaired the meeting and members introduced themselves around the table. One new member company has joined since our last meeting, TTP, a Cambridge based innovation and development consultancy which is active in several gas detection, sensing and measurement areas.

Andy Curtis introduced himself and explained that he is now CoGDEM's Company Secretary having taken over from Dave Curtis who retired from the position in January. Andy will be shadowing LG as he will take over the CoGDEM admin role when LG retires at the June AGM (see AOB below). AC's background is in the process emissions side of gas detection and he is already running the Source Testing Association.

The above list of apologies was displayed and read out.

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### 2 Approval of previous minutes and matters arising

The Minutes of the previous meeting (23<sup>rd</sup> Oct 2018, CO1457-18) were read and accepted. Matters arising were covered during the rest of the agenda.

### 3 Lobbying (inc. All Party Parliamentary CO Group)

#### All Party Parliamentary Carbon Monoxide Group (APPCOG):

To enable commercial organisations to be involved with relevant Parliamentary affairs, CoGDEM is a member of the APPCOG Stakeholder Forum funded by industry (including certain CoGDEM members who choose to do so) and overseen by an Advisory Board that LG is a member of.

Since our last CoGDEM meeting in October, the APPCOG secretariat has been focussing on the review of the 2015 English CO and smoke alarm regulations that apply to properties in the Private Rented Sector, which has itself triggered a review of the relevant section of Building Regs, (AD J, last reviewed in 2009/10). The relevant Government department is the Ministry for Homes, Communities & Local Government, and CoGDEM attended two meetings at the Ministry (Oct & Nov). CoGDEM members had been asked by LG to supply data in order to update the cost/benefit analysis sent to Ministers just prior to Christmas, some useful figures were received which LG had sent to the Ministry.

Everyone at the MHCLG meetings (including the civil servants) agreed that it would be appropriate and sensible for both sets of regulations to be changed to require a wider use of domestic CO alarms in properties containing any kind of fossil-fuel burning appliance, not just solid fuels as at present.

The latest feeling from the APPCOG secretariat (given at the APPCOG meeting held on 28 Feb 2019) is that the cost/benefit ratio was only just showing a positive benefit, so Ministers are likely to go one of two ways:

- change the scope of the English Private Rented Sector Landlord Regs to make the existing rules apply to Social Housing providers as well, or:
- change the text of the Regs to make them apply to all-fuels (not just solid fuels) across the private rented and Social Housing sectors

APPCOG is ensuring that relevant MPs are continuing to ask questions of Ministers and an imminent meeting between Eddie Hughes MP and the Housing Minister will stress the potential lost opportunity if Government does not extend the Landlord Regulations to cover all-fuels. Building Regs amendments will take longer to be agreed, due to the Grenfell Inquiry and subsequent recommendations needing to be published first.

Useful data has been extracted by APPCOG from the [English Housing Survey 2017-18](#) and [English Private Landlord Survey 2018](#), for example, the population of CO alarms is thought to be around 38% of homes, which is thought to be a sensible figure with which CoGDEM can agree. A newsletter from the APPCOG ('The Spark') is circulated to those CoGDEM member companies who have decided to help fund the APPCOG.

Since our October CoGDEM meeting, APPCOG has also hosted Parliamentary meetings on the subjects of fuel poverty, vulnerability and the link to CO risk, as well as Acquired Brain Injury and mental health symptoms (including dementia) after CO exposure. The Comms Sub Group has met several times and our PR expert Rob Lyon is the current chair, causing the Group members to be more 'communicative' in advance of the various PR initiatives that they intend to take. Also the SciTech Sub Group met in January and LG heard about the various research projects happening in academia, and also a project that Gas Tag is undertaking which will involve linking CO detectors to the internet via Vodafone's IoT network. The COMed group held an event with GST funding in November where LG gave a presentation on the various types of CO instruments that may help medics.

The APPCOG secretariat hosted a meeting in Parliament on 5<sup>th</sup> March for the 2019 music festivals organisers, to encourage activities related to CO safety. Rob Lyon attended the meeting and reports that banners and posters will again be on show at the key festivals, warning of the CO risk from barbecues inside tents. It is believed that no reported CO incidents have occurred at UK festivals since this initiative was started several years ago.

#### Others:

[Safer Tourism Foundation](#) (Thomas Cook funded) STF is currently running a social media awareness campaign to advise people who organise their own skiing trips to take a CO alarm if staying in a chalet, following the incident in the French Alps last winter when a British family had to be hospitalised after inhaling CO when the stove's chimney was blocked by a heavy snowfall. They have worked with Safelincs to have a dedicated page on their website to list suitable 'travel' CO alarms, and are promoting the same message through Mumsnet.

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CoGDEM's previously reported contact with Thomas Cook (and STF) about the Hurghada Egypt fatality of two British tourists (initial media speculation of possible CO inhalation), helped to facilitate a meeting at their London HQ about their stated position on equipping relevant holiday properties with CO alarms. LG and Shane Lyons attended and were initially pleased to be verbally invited to attend a resort managers' conference in Europe in mid-March to give a brief presentation to around 400 employees about CO poisoning awareness and the role that CO alarms could play. However, it was frustrating to receive a follow-up email explaining that there would be a €15k charge for our attendance. We have turned down the invitation and responded that it was disappointing to be charged for wanting to give a safety presentation that was so relevant to Thomas Cook, given their history.

### Gas Safe Register

We endeavour to keep a good relationship between CoGDEM and GSR, and we had hoped that the flawed 'Silent Home' video launched during Gas Safety Week was a one-off blip. LG had reported this to CoGDEM members at our October meeting, and his letter of complaint was published in the 'Registered Gas Engineer' magazine in November, highlighting that the video was showing a young child about to succumb to CO exposure in an otherwise safe house that had a faulty boiler, but the video made absolutely no mention of CO alarms that could be a lifesaver in this very example.

However, also in November, BBC Watchdog Live did a piece of investigative journalism exposing two engineers who are on the current Gas Safe Register list who have a hidden history of dangerous work and successful prosecution by the HSE, in one case causing a serious CO exposure to a resident. Despite an invitation, GSR chose not to appear on the programme to discuss the reasons and explain their role, but they sent a written statement, leading the journalists to subtly accuse GSR and Capita of being "chickens" for not appearing. The wider gas industry has reacted badly to GSR's response, as the BBC's position was that the consumer cannot trust the list of 'competent' traders that GSR maintains. CoGDEM was asked recently by GSR if members would be willing to donate more free CO alarms to the organisation, and LG responded to GSR that this was less likely given recent events, as well as already agreed donations to the Katie Haines Memorial Trust (see item 4 below).

When discussing engineers' competence at today's meeting, LG agreed to raise a question with GSR of their field inspections of registered engineers, after this was highlighted by Damian Cairns (Anton). It is not clear to many CoGDEM members how proactive and regular the GSR inspections are made, or whether these only happen reactively after a problem arises or a complaint about an engineer is made.

Which? Since our complaint to Which? magazine about the provocative article and image of a dangerous CO alarm on its cover in October 2018, nothing more has been heard.

GISG (Gas Industry Safety Group) GISG is still awaiting the fully costed proposal from Martin Brown of DNV/GL for the agreed research project to investigate the build-up of CO in typical domestic kitchen environments.

BRE (Buildings Research Establishment) Since the meeting at BRE in October (reported at our previous CoGDEM meeting) it would seem that BRE has not received any offers of research funding (although Sprue had offered some smart FireAngel devices as BIK support). BRE may have dropped the idea of CO research if it is not financially viable.

IGEM (Institution of Gas Engineers & Managers) The 2018 IGEM CO conference entitled 'Research to Recovery' successfully took place in London in November with several CoGDEM members present to hear some good presentations, primarily on medical aspects of CO poisoning. This seems to have become an annual event.

## **4 Publicity update (inc. Europe, Holland, France and UK group)**

### **UK:**

Rob Lyon was not able to be present today to give an update on his PR activities to support the CO alarm and FGA manufacturers who are part of a separate PR working group run by him via his independent company Playfair Marketing. On his behalf, LG mentioned Rob chairing the APPCOG Comms Group (see above), the festivals' work, and the excellent relationship with the Katie Haines Memorial Trust, who are readying a major campaigning effort in 2019 to commemorate what would have been Katie's 40<sup>th</sup> birthday year. This kicks off with a memorial service in a Gloucestershire church at the end of March and the launch of a new video that Rob has prepared for them. Some CoGDEM member companies have donated CO alarms to KHMT via Rob.

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LG also mentioned the 'United Against CO' campaigning initiative that Rob has launched. He is also helping the Boat Safety Scheme with messaging for their forthcoming mandatory requirement for CO alarms on inland waterway boats that are subject to BSS inspections (see item 8b below).

Energy UK has a new online CO awareness-raising video on its CO-Be Alarmed! website, but they do not seem to have an appetite for a large-scale media campaign this winter.

HETAS is just publishing its 2019 Guide to solid-fuel products and services, and the CO chapter includes product listings from ten CoGDEM member companies this year, coordinated by CoGDEM.

### **Europe:**

The European monitoring and lobbying group run by ADS Insight had its main activity in November, this being the 8<sup>th</sup> annual 'Roundtable' event that was held in the EU Parliament building in Brussels, focussing on the emergency medical treatment of CO victims, LG co-chaired the meeting with two MEPs and heard some superb presentations from medics from several EU nations. It is hoped to follow this up with a larger scale CO event in France this autumn (see France below). Other EU PR activities for 2019 are yet to be confirmed.

### **Netherlands:**

Patrick Voornhout of Kane (ex-Honeywell) keeps the relevant Dutch group members informed of developments with the government's introduction of new regulations covering gas appliances, and recommendations for Dutch consumers to fit domestic CO alarms. The regulations may not now be implemented until 2021.

### **France:**

'OPRIM' was set up by Shane Lyons of Ei Electronics, who hopes the group of alarm manufacturers, distributors, energy bodies and health organisations will back the idea of a health CO event proposed to be held at the Lille 'Anti-Poisons Unit' in the autumn. This could provide a major opportunity for generic awareness-raising and French media interest prior to the coming winter heating season.

### **Global:**

Following the success of the International CO Research Network's (ICORN) two-day conference and workshop in Minnesota in September 2018, it is hoped that some delegates may also attend the proposed French event.

As reported to CoGDEM in October, some of the US attendees at the ICORN conference had expressed disappointment with aspects of the US standard for domestic CO alarms, UL2034. LG had subsequently approached the delegate from the US 'Consumer Product Safety Commission' to ask if they might want to discuss the subject, but has received no response. LG added that ICORN is struggling to maintain momentum as there is as yet no funding body to provide a secretariat function, so activities are being coordinated by volunteers.

## **5 CO alarms Standards Review (including Brexit effects)**

The final draft revision of EN50291-2 standard (for the additional performance requirements for CO alarms intended for use in recreational vehicles) received the predictably negative comments from the European consumer group ANEC which had to be answered. This did not affect the text of the standard which should be published in 2019, as the text had already been finalised and it has been agreed to skip the Final Vote procedure.

The UK's gas detection committee EXL/31/1 has its annual meeting on 20<sup>th</sup> March, and LG today asked the chair Tony Banfield for three items to be discussed, possibly to be forwarded to the TC216 meeting on 29<sup>th</sup> May 2019 in Delft:

- whether the 2013 guidance standard EN 50292 should be updated and perhaps widened to include interlinked alarms, to address the lack of consistency with how CO alarm manufacturers show the 'replace by' date, and deal with the location of combined smoke/CO alarms
- the grey area between the standards for domestic CO alarms and the standards for industrial workplace gas detectors (EN 45544).
- new innovative products for domestic Indoor Air Quality appearing on the market often include sensors for low concentrations of CO, CO<sub>2</sub> and VOCs, but there is no consistency over activation levels, detection limits, ranges, accuracy and siting guidance. Is a standard feasible?

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The new standard for CO (and NO etc) in road-tunnels, EN 50545-2, would be covered in the afternoon meeting.

CoGDEM members discussed the requirements that Brexit outcomes might impose on product markings, and the following combined notes were compiled after similar discussions at both the morning CO Sub Group and the afternoon's Industrial Sub Group meetings:

Members expressed concerns at the current situation regarding the unknown trading conditions after the UK leaves Europe on 29<sup>th</sup> March, although the situation may have changed by the time these minutes are distributed. Most concerns were about the possibility of a no-deal Brexit, when the previously agreed transition arrangements for standards and trade would perhaps be cancelled. UK Notified Body certificates which currently allow manufacturers to apply the CE mark would probably become invalid across Europe, so manufacturers are desperately trying to get their preferred Notified Bodies to issue them a new NB number which recognises the European-based offices of those organisations or their trading partners. It was commented that for the domestic CO and smoke alarm manufacturers, BRE were making arrangements in Ireland, with BSI and UL operating through the Netherlands. In the Hazardous Locations situation discussed in the afternoon, SGS Baseefa have a Finnish location, CSA Sira in the Netherlands and FM in Ireland, but there may be a delay with some of the 'new' NB numbers being issued by Brussels, which might delay UK manufacturers' updating their Declarations of Conformity to make them 'legal' and acceptable across Europe.

Doug Longstaff of Dräger pointed out that at the recent L/6/10 meeting he attended, it was said that the CE mark itself was copyright owned by the EU and would not be usable by British companies after Brexit, although this does not stack up with the fact that non-European companies have been legally applying the mark to imported products for decades. The UK Government has very recently publicised the UKCA mark which will replace the CE mark for intra-UK products, but this mark has yet to be ratified by Parliament, according to members.

Steve Cork (CSA Sira) said that the UK Government department BEIS were hosting a meeting for Notified Bodies on 6<sup>th</sup> March and he would ask his colleague to share any useful information with CoGDEM after the event.

LG wondered if after Brexit, some of the remaining EU27 countries may experience national manufacturers advising customers not to purchase British products as they are no longer 'European'. But perhaps European consumers won't care?

### **6 Flue Gas Analysis (inc CO<sub>2</sub> test results, update to EN 50379 to include gas pressure)**

The meeting was reminded of the tests conducted at BSI last summer using a range of FGAs to measure the products of combustion from a gas boiler that was fed with 100% methane and then a mix of 95% methane and 5% CO<sub>2</sub>. The decrease in CO emissions was explained by the gas mix having a lower calorific value (as it only contained 95% methane), so the boiler would need to fire for longer to produce the same heat output. This would mean the volume of emissions would increase, even if the concentrations were lower.

The boiler manufacturers' trade association HHIC (Heating and Hotwater Industry Council) has heard of these FGA tests and the wider issue of how FGAs will measure combustion products when appliances are fed with fuel gas of various compositions and a potentially wider Wobbe index. CoGDEM has been invited to attend the next HHIC Boiler Technical Panel meeting in May, and it was felt that Kevin Miles of GES would be the right person to attend as he was closely involved with the BSI tests and has a detailed knowledge of the whole FGA product range from the relevant CoGDEM manufacturing companies. It was pointed out that the FGA manufacturers need to be told by the boiler manufacturers how the new fuel mixes may affect the combustion products of their appliances, rather than the FGA manufacturers telling the boiler manufacturers!

There has yet to be a meeting of CENELEC TC216 Working Group 13, established to revise the FGA performance standard EN 50379 to allow for 'smart' devices such as those that don't have built-in displays but use the engineer's smartphone's display, and to include a new section (part 4) to cover standalone gas pressure meters ('tightness testers'). Mike Murley-Hughes confirmed that Testo has an EN 50379-compliant FGA with a remote display.

Gary Fairhurst updated us that the relevant German members of the EN 50379 WG (members of 'figawa') held their own meeting on the pressure meter standard proposal, and they felt that this should be a separately numbered stand-alone standard rather than be created as part 4 of the FGA standard EN 50379. The original plan two years ago was for it to be a completely new standard, but the German convenor decided that part 4 of EN 50379 was a better way to go. Tony Banfield agreed to investigate and contact the convenor.

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### 7 Electrochemical toxic gas sensor lifetime testing

John Saffell and Jonathan Gilby gave a brief overview of the outcome of the fifth meeting of the sensor group that had been held the day before this CoGDEM meeting. The proposed 'Technical Specification' for a series of tests that sensor manufacturers could apply to relevant sensors is reaching its final draft stage, after a few more suggested revisions are to be made. LG requested that this amended draft should be discussed with BSI at a meeting with domestic CO alarm manufacturers present to see if it might lead to a 'pre-authorisation' of CO sensors that are to be used in BS EN 50291-compliant products. It is hoped that the sensor group's June meeting will be the last one, and that the Tech Spec will start to be used by sensor manufacturers.

### 8 AOB (inc. updates from HSE, boat project, membership renewals and pre-AGM meal)

#### a) HSE

Mike Hemingway of HSL/HSE could not be with us today, but commented before the meeting to LG that he is still involved with the HyDeploy hydrogen injection project at Keele University mentioned at our last meeting, and he still had concerns about the cross-sensitivity of CO sensors (used in domestic CO alarms and Flue Gas Analysers) to hydrogen. Doug Longstaff had attended a recent HyDeploy workshop at Buxton that Mike was at, so Doug told today's CoGDEM meeting that one concern of the HSE is that leaks of natural gas containing perhaps 20% H<sub>2</sub> could potentially cause outputs from some CO sensors, leading to incorrect actions being taken. LG stated that many FGAs used hydrogen-compensated (or hydrogen-immune) CO sensors, but a rough calculation showed domestic CO alarms might activate if they saw around 5% LEL H<sub>2</sub>. Doug mentioned that other concerns with hydrogen as a fuel are flame colour and flame sensing devices, leakage rates (small molecular size) and how to maintain the fuel mix's Wobbe index within its allowable range.

#### b) Boat Safety Scheme

LG updated the meeting on the ongoing project to assess the third-party risk of CO exposure to BSS Examiners when they board an inland waterways boat to conduct various safety inspections. Since December 2017 there have been over 80 occasions where a workplace portable gas detector has warned its user of CO concentrations greater than 10ppm. One boat was visited by a BSS Examiner following multiple CO alarm activations which were only occurring after a gas grill was used in the galley. The appliance itself was fine when checked by the experienced BSS Examiner who is also Gas Safe Registered, so LG attended and the problem was only uncovered when the boat-owner was asked to show how she used the grill. This was being allowed to warm up with its door closed which was starving the gas flames of oxygen so causing incomplete combustion and high CO production of well over 200ppm. The BSS will be taking this up with the cooking appliance manufacturer.

From April 2019 the BSS are making CO alarms a mandatory requirement on all boats with sleeping accommodation that are inspected as part of the scheme.

#### c) CO alarm activation experience

Peter Philpott (TPI) told the meeting that a family member had an experience of a domestic CO alarm activation in the bedroom of their 8-year old child. This bedroom contained the home's central heating boiler which may not have been regularly serviced. This confirmed Peter's long-held view that CO alarms are essential items of home safety equipment and potential life-savers.

#### d) GASG

The next colloquium of the Gas Analysis & Sensing Group will be on 4<sup>th</sup> April 2019 at Brooklands Museum in Surrey, titled 'Vapour tales: gas detection and transportation'. After that, the next colloquium will be held at Warwick University on 27<sup>th</sup> June, subject TBA. Details of the group and its activities and membership list can be found at [www.gasg.info](http://www.gasg.info).

#### e) EU Directives

John Darby (City Tech) pointed out that four new 'Substances of Very High Concern' (SVHCs) had recently been added to the REACH Directive, although these are all polyaromatic compounds unlikely to be used in CoGDEM members' products. Also, following a legal review, the intent of the regulation with regards to Article 33 notifications indicated that these should be provided proactively rather than simply upon customer request.

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### **f) National Caravan Council (NCC)**

After a comment by Mike Byrne, LG mentioned that since the report at our last CoGDEM meeting, his emails to the head of NCC have been unanswered, so we remain in the dark as to whether they are still upholding their 2018 decision to impose mandatory gas-testing of CO alarms in the caravan and motorhome industry's Approved Workshop Scheme, using only the NCC's 'verified' 'calibrated' test-gas. Although we reported that this gas disappeared from the October list of NCC's verified accessories, it reappeared on the November list.

### **g) Invoice Renewals**

CoGDEM's financial year ends on 31<sup>st</sup> March, so LG reminded the meeting that our policy is for membership renewal invoices to be automatically issued in early April. If member companies' PO numbers need to be shown on these invoices, then these need to be sent to Sam in advance. A reminder email will be sent in March.

## **9. Dates of 2019 meeting – Tues 11 June 2019 (AGM), Tues 22 Oct 2019**

LG reminded the meeting that he would be retiring at CoGDEM's AGM in June, and with Dave Curtis having retired in January it has been suggested that some members might like to attend a social event to mark these changes, to be held the evening before the AGM. Consequently, a barbecue has been arranged at Hitchin Priory in the centre of town, starting around 7pm on Monday 10<sup>th</sup> June 2019. The Priory is a hotel/conference centre and overnight rooms are available, see <https://chartridgevenues.com/hitchin-priory/>, but it is only a few minutes' walk from other hotels used by CoGDEM members such as The Sun, The Lord Lister, La Bella Vita and the Premier Inn. CoGDEM will pick up the cost of food and drink for the evening event, but not overnight accommodation costs. More details will be supplied nearer the time, or speak to LG or Sam with any queries.