

# Minutes of Meeting

Document No CO-1450-16

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| Subject  | <b>CO Sub Group</b>        | Circulation      | All members                |
| Date     | 21 <sup>st</sup> June 2016 | Circulation Date | 21 <sup>st</sup> July 2016 |
| Location | CoGDEM offices Hitchin     | Circulation by   | Website & email            |

## Attendees

Leigh Greenham - CoGDEM  
John Saffell - Alphasense  
Mike Byrne - Ei Electronics (Meeting Chair)  
Colin Mitchell - Ei Electronics  
Jonathan Kane - Kane International  
Billy Mitchell - Smart Compliance  
Hans Hubner - GfG  
Andy Avenell - Crowcon  
David Johnson - Alphasense  
Colin Hydes - Honeywell Analytics  
Jane Howitt - Honeywell Analytics  
Adrian Keats - Honeywell Analytics  
Sebastian Meier - Testo  
John Walsh - Sprue Safety  
Brendan Simpson - FireBlitz  
Peter Philpott - TPI  
Andy Burnett - Kidde Safety  
Matthew Herrick - GES  
Kazuaki Watanabe - Figaro Engineering  
Shinsuke Yamada - Figaro Engineering  
Jonathan Gilby - City Technology  
John Darby - City Technology  
Zoe Forman - Mandeville Marketing  
Andrew Keenan - CSA Group (Sira)  
Tony Banfield - EXL/31/1 etc Chairman  
Damian Cairns - Anton

## Apologies

John Sonley - JMS Consultants  
Neil O'Regan - Shawcity  
Graham McKay - BSI Globa  
Arthur Burnley - Alphasense  
Martyn Walley - Aico  
Neil Perdell - Aico  
Rob White - DD Scientific  
Mike Murley - Testo  
Paul Basham - Crowcon  
Louise Early - Crowcon  
Kevin Milesen - GES  
Duncan Gooch - Honeywell Analytics  
Julian Butler - Dara Solutions  
Craig Thompson - A1-CBISS  
Jason Perrins - FireBlitz  
Ian Ballinger - Sprue Safety

## Agenda

- 1) Apologies and member introductions
- 2) Approval of previous minutes and matters arising
- 3) Lobbying activities (inc. All Party Group, )
- 4) Publicity update (inc. Europe, Holland and UK)
- 5) CO alarms standards review (inc. EN 50291-1 update and M/109 mandate)
- 6) Flue Gas Analysis (inc. BSRIA 'Flues in Voids' research, NOx effects)
- 7) Non-compliant CO alarms (inc. Trading Standards recalls and 'black spots')
- 8) AOB (inc. updates from HSE, helpline)
- 9) Date of next meeting – Tues 18 Oct 2016

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## 1 Apologies and member introductions

The above list of apologies was displayed, and members introduced themselves around the table, including new member company Figaro Engineering from Japan, who said a few sentences about their gas sensors for use in both domestic and workplace gas detectors.

## 2 Approval of previous minutes and matters arising

The Minutes of the previous meeting (23<sup>rd</sup> Feb 2016, CO1449-16) were read and accepted. Matters arising were to be covered during the rest of the agenda, although LG mentioned there was only a brief update on the Scotia Gas Networks CO alarm initiative, as there had only been progress this week when he requested an update to give to CoGDEM members today, despite his regular chasing. SGN would arrange a meeting in July. Also, LG mentioned that the project by BSS to equip their boat inspectors with gas detectors was making progress between GES and GMI.

## 3 Lobbying (inc. All Party Group)

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

To enable commercial organisations to be involved with Parliamentary affairs, APPCOG has the 'CO All Fuels Action Forum' funded by industry (including CoGDEM) and overseen by an Advisory Board that LG is part of. There have been many APPCOG and Forum meetings and events since our last CoGDEM meeting.

At Forum meetings, LG has pushed for APPCOG to keep up the pressure on the coordination of large scale awareness-raising campaigns with the gas retail and distribution companies working together. The success of the canary campaign in Eire is often used as a benchmark, and combining the CO-Be Alarmed campaign with some of the GDN resources is often suggested.

The protection of tourists and travellers is being covered by the setting up of a new sub-group to be chaired by Alice MacAndrew, the Communications Director of Thomas Cook and trustee of their 'Safer Tourism Foundation'. The first meeting of this COAST sub-group has taken place, as has a separate meeting called by the MP whose constituent Francesca Dingley died from CO in her rented apartment in China.

The Science and Technology sub-group led by Roland Wessling continues to be busy and has virtual meetings for academics every few months. The Cranfield University CO impact study report is to be launched at a two-day event in Shrivenham at the end of the June, LG will attend. (Post-meeting note: launch event was very good, but report not quite ready for publication by Cranfield Uni!)

The Medical Practitioners sub-group led by Isabella Myers is also about to launch its own report. This (and the impact report mentioned above) will be distributed to those CoGDEM members who contribute to the funding of the APPCOG Forum's work.

APPCOG is also very engaged with the CO safety aspects of the rollout of smart gas meters, and has organised meetings to discuss the CO checks done during the meter-swap, the information given to householders/tenants/landlords during the visit, the protection of the worker from CO during appliance re-lighting, and the process of follow-up for properties thought to be at risk.

The APPCOG secretariat picked up on the 'black spot' indicator card issue highlighted by Isabella Myers and mentioned at the last CoGDEM meeting. A Parliamentary question was asked by Barry Sheerman MP with the Government's response from BIS describing the products as obsolete and not generally available. Baroness Finlay wrote a letter from the House of Lords to the management and owner of the Robert Dyas retail chain, inviting them to Westminster to discuss their continued promotion of the products. This provoked a response that such a meeting was unnecessary as they had just decided to discontinue the product.

At today's CoGDEM meeting it was suggested that more MPs might get engaged with APPCOG if they received letters from companies or individuals in their constituencies. CoGDEM members were encouraged to write to their MPs about their particular interest in the subject. LG will provide a template letter if required.

### Public Health Wales:

CoGDEM continues to support the Welsh initiatives and Zoe attends their regular meetings in Cardiff. Their current focus is student accommodation, summer festival attendees and vulnerable people being visited in their homes by the emergency services.

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### Others:

We continue to communicate with Ofgem, GISG, IGEM, HSE, HETAS and other organisations to ensure that CO and engineer competence is high on their respective agendas.

The recent double fatality on a cabin cruiser on the Norfolk Broads has led to the Boat Safety Scheme and RYA reissuing their CO warnings and guidance in press releases, with help from CoGDEM.

The Gas Safe Charity is 'relaunching' itself; it has been off most people's radar recently as it is not funding any big-ticket projects, unlike the Gas Safety Trust who continue to fund some important research work.

IGEM has started to talk about holding another CO conference in November.

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

### Europe:

Zoe Forman gave a brief update on European activities, with input from Jonathan Kane.

The most recent event coming from the European project run by the Brussels company ADS Insight was another 'roundtable' event within the EU Parliament building. This was sponsored by a group of CoGDEM members, many of whom attended, and had delegates from several European nations. There were formal presentations from EHI about how the European gas appliance manufacturers would act on the revised Gas Appliance Regulations, ABTA about the Tourism Safety Directive, ANEC about barbecue and charcoal labelling, Gas Networks Ireland about the canary campaign, Zoe about data collection and dissemination, and Dr Bob Flanagan of Kings College Hospital) about incident statistics (ZF, LG and Isabella Myers had a follow-up meeting with him at KCH to hopefully take the project further).

As reported at the last meeting, Jonathan Kane had approached the German FGA trade association FIGAWA, and he announced that they have now agreed to co-fund some of the ADS project with CoGDEM as it moves forward.

A booklet of weblinks to online media reports of CO poisoning incidents across Europe was passed around the CoGDEM room today. This is one of the tasks that ADS performs for their CoGDEM sponsors. Under AOB later in the meeting, Damian Cairns of Anton asked if these regular reports could be made available electronically to CoGDEM members, this request will be considered by Zoe and the group who fund ADS.

### Netherlands:

Jonathan Kane explained that the small group of manufacturers of CO alarms and Flue Gas Analysers continues to be active and the Dutch government will be making a response to the Dutch Safety Board report.

The Dutch consumer safety authority NVWA has chosen BSI to conduct some surveillance tests on CO alarms, and this is now underway, see section 7 below.

**Project Shout** - As mentioned at previous meetings, Sprue set up 'Project Shout' to give a higher media profile to CO alarms, using Stacey Rodgers' story made into a TV ad shown in the UK. In Rob Lyon's absence, John Walsh told members that the project continues to be successful, and a 'University Challenge' is underway in which infotainment videos will be produced by undergraduates. As John also said in February, Project Shout could be expanded to encompass other manufacturers, so interested parties should contact Rob Lyon at Sprue.

## 5 CO alarms Standards review (including EN 50291-1 update and M/109 Mandate)

Mike Byrne and Tony Banfield updated the meeting following the CENELEC TC 216 meeting in Barcelona in May. Tony's formal report is shown below in *italics*, with our meeting comments following.

### EN 50291-1:

*This project was cancelled due to exceeding the CENELEC timescale. It had been granted an extension while waiting for the TC 216 answer to mandate M/109, but this was only 9 months and that time has passed.*

*The latest communication from EC services regarding the TC 216's second answer to the mandate was only received the day before this meeting and raises many more questions than it resolves. In view of this the UK*

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*has already proposed that we complete the current revision of EN 50291-1 without taking account of the requirements of the mandate.*

*TC 216 agreed to this proposal, but we must now re-start the project by issuing a NWIP.*

TC 216 requested CENELEC to start a new work item and as part of this it was necessary to show that at least five countries would be willing to participate – there is now agreement to send experts from Ireland, UK, Germany, France, Italy, The Netherlands and Poland. A reply is awaited from CENELEC to allow the new work item to commence, but when it officially restarts it is proposed that the final draft of the revised standard be published as it stands. Ireland's NSAI is providing the convenor of the Working Group, but there is a risk that some of the new experts on the Working Group will request changes which could require a modified draft to have to go out for public comment again.

Mike Byrne stated that optimistically it will emerge as a published standard before the end of 2016, but pessimistically .....

The news on the mandate M/109 to make the standard harmonised and compulsory under the Construction Product Regulations was not encouraging. The EC consultant has told the working group that EN 50291 cannot be harmonised under the CPR as it prescribes activation and action levels. This seems ludicrous and the Working Group is trying to understand and explain the logic behind this, and to come up with a workaround. (Post-meeting note: Mike Byrne comments "However with Brexit this may be irrelevant in the UK until a 'CPR(UK)' is invented".)

### **EN 50291-2:**

*The convenor, Inigo Iglesias, had made major changes as final comments because we expected the format to change as a result of waiting for resolution of the TC 216 answer to mandate M/109. These are now to be discarded and this standard will be finalised in its original format. We should be able to keep to the CENELEC timescale, and the secretary stated that we could then hold publication until the revision of EN 50291-1 was published, thus ensuring that there are no conflicts.*

The Spanish convenor will take into account the UK comments about the need to slightly change the test criterion for the shock test, so that a single exposure to test gas is made after the shock test, not during. LG wondered whether BSI might share their test protocol which has previously been accepted by UKAS as a suitable test technique to satisfy this particular clause of the standard. If so, CoGDEM could then endorse this technique if agreed by the CO alarm manufacturers.

The TC 216 meeting also discussed the issued raised by CoGDEM after one UK test lab achieved different response time results to another UK test lab when CO alarms were exposed to an apparent step change from fresh air to a stable gas concentration. The test chamber design and layout and the gas input techniques were different, leading to some CO alarms failing tests that they had previously passed in a different laboratory. This led to the unnecessary hassle created by the West Sussex Trading Standards press release, and LG suggested that manufacturers are not being best served by this difference in test techniques that could give totally different results. The minutes of the TC 216 meeting recorded:

### **Proposal to seek 'round robin' testing of laboratories accredited for testing domestic CO alarms to EN 50291-1**

*After some discussion, this CoGDEM proposal was rejected because of a lack of clarity on how tests should be carried out and who should conduct them. TC 216 suggested that CoGDEM approach EA regarding this issue.*

EA is the European Accreditation organisation of which UKAS is a member. LG suggested that this issue may be best dealt with by UKAS talking to the two UK test labs that this involves.

**Other CO alarm standards:** EN 50292 (guide for users) remains as is, and it was reported that UL 2034 has had a few minor updates.

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### 6 Flue Gas Analysis

**Standards:** The revision to TS 50612 (European guidance on the use of FGAs) is now published, widening the scope of the 'Technical Specification' document from solely covering gas boilers to most domestic gas-fuelled appliances. The timing of this has been helpful, as EHI can be informed that this may help their member organisations reference a bonafide document when discussing the changes brought about by the GAR (referenced in 4 above). Jonathan Kane has started a dialogue with EHI following the Brussels roundtable event, in an effort to ensure all European gas appliance manufacturers adapt their installation and servicing instructions in an appropriate manner.

The TC 216 meeting referred to in section 5 above also discussed the proposal for a standard covering the accuracy of **gas-pressure instruments**. TC216 agreed that the gas detection committees across Europe are the correct home for the project, so it will create a New Work Item with Jonathan Kane as convenor. A call for experts will be sent out in due course. Germany would like to extend the scope to include flow rate measurement amongst others.

Since our last meeting, Kevin Milesen raised a question about the differing abilities of CO sensors within FGAs to deal with **NOx**, particularly relevant within the flue gases of oil-fired combustion appliances. Each manufacturer responded by email with positive statements about the sensors they have chosen for their FGAs, the filters and/or compensation techniques used.

A project commissioned by GISG and undertaken by BSRIA in Bracknell has been looking at whether FGAs or CO<sub>2</sub> ambient monitors might be used in **Flues-in-Voids** applications where the flue cannot be visually inspected due to the lack of inspection hatches in ceilings or walls. LG attended a site meeting and has received project reports which can be circulated to interested members on request. In summary, small leaks of combustion gases into a void would only cause low rates-of-rise of CO<sub>2</sub>, probably too slow to be detected during the length of time that a heating engineer would be present. However, larger leaks or complete separation of the flue system would generate rapid rises in CO<sub>2</sub>, easily detectable. It remains to be seen whether the HSE and GSR will allow CO<sub>2</sub> build-up testing as a satisfactory alternative for Flues-in Voids inspections.

### 7 Non-compliant CO alarms (inc. Trading Standards recalls and 'black spots')

In April, one of the APPCOG secretariat spotted a suspicious-looking CO alarm being sold by Go-Outdoors under the StreetWize brand, sitting alongside a properly certified FireAngel CO alarm. After CoGDEM was contacted, Ian Ballinger at Sprue kindly purchased a couple of samples and found the BSI Kitemark being used, and some very poor instructions supplied with the unit. Within hours, BSI confirmed that no such Kitemark licence existed for this product and took relevant action including some gas tests. Through our Primary Authority Partnership with Oxfordshire Trading Standards, the local TS offices to the HQs of Go Outdoors and StreetWize were notified and the product removed from sale.

BSI confirms that they are currently undertaking several CO alarm surveillance projects at present, including for Which? magazine, the Dutch NVWA organisation and a Dutch consumer association. All three organisations have supplied samples for BSI to test. The results will be available to the funding organisations later in the year, but Which? has decided to get early publicity for a non-compliant CO alarm that failed the BSI test protocol.

During LG's visit to Which? earlier in the year he pointed out the circular CO alarm with the blue backlit LCD that would generally come up first on internet marketplace listings. Which? purchased two of the many differently branded versions of the identical alarm, and asked Amazon and eBay to remove the products after they failed the BSI tests. Apparently this was agreed and the alarms were pulled, but of course there are many other brands of the same alarm still available, some claiming compliance with EN 50291 (or "calibrated per EN 50291").

It is hoped that publicity at the end of these surveillance projects will strongly identify the gulf between properly compliant CO alarms and those that aren't. Peter Philpott of TPI pointed out that the existing CO data on the Which? website looked very good. CoGDEM had vetted and amended this data a year or so ago, and ensured that all the correct guidance was being given, including the importance of EN 50291 compliance.

The change in the situation with high-street retailers of 'black spot' indicator cards has been explained in section 3 above, given the action taken by APPCOG. It seems that these are still being sold online, although one website shows the manufacturer to have changed the lifespan of a unit from 3 months down to 1 month.

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### **8 AOB (including updates from HSE, helpline)**

#### **a) HSE**

Unfortunately nobody from HSE/HSL could be present today, so we did not receive an update on the various projects underway at Buxton.

At our last meeting, Mike Hemingway told us that the report had been finalised for the project that HSL conducted for IGEM/Gas Safety Trust to look into increased health risks from carbon monoxide/carbon dioxide in modern dwellings because of the use of flueless gas appliances in dwellings with lower ventilation rates. The report has now been published, with confident press releases from both IGEM and GST that no worrying concentrations of CO were found, despite industry's concerns raised about how the 'brand new' gas appliances were loaded for the tests (e.g. gas hobs lit without pans in use, so unlikely to create CO). The high CO<sub>2</sub> emission results were thankfully mentioned in the final report's Executive Summary and Conclusions, with a suggestion for further work to be done in this area.

#### **b) CoGDEM's CO Helpline**

LG mentioned that some recent calls to the helpline included reports of unusual but genuine activations of domestic CO alarms. Firstly, a flat above a Persian restaurant in West London was contaminated with CO after a charcoal oven was left smouldering overnight with no ventilation in the kitchen below. Then an occupier of an all-electric home couldn't understand why his CO alarm had activated, but questioning revealed that he had turned his back on a frying pan with coconut oil that had overheated on the electric hob. Thirdly, a May Bank Holiday caller asked "can a barbecue set off a CO alarm? We brought it in indoors when it rained."

A caretaker rang to ask if the school boiler room could be protected using a domestic CO alarm (no) and whether he could prime the boiler's water tank without him being Gas Safe Registered (yes, as he was not interfering with the gas-handling side of the boiler).

#### **c) Gas Safe Register – HSE Consultation**

Jonathan Kane informed the meeting that the heavily revised registration scheme for gas engineers has been in place for over seven years, and the HSE must formally review both the scheme and the organisation before the next tender process can begin, well in advance of the tenth anniversary of Gas Safe Register (Capita) being awarded the scheme for a ten-year period. Interested parties should watch for opportunities to participate in the HSE consultation over the coming months. LG was separately informed by GSR that it would be conducting its own consultation with stakeholders. Separately again, the Gas Industry Safety Group will be conducting a small project to ask newly qualified gas engineers how confident they are that their training addressed all the issues that they come across. LG has asked for some specific CO awareness questions to be inserted.

#### **d) Electrical Times CO article**

Colin Mitchell of Ei Electronics pointed out a recent article in Electrical Times containing some incorrect statements about CO alarms taken from a press release that has been doing the rounds. He suggested that CoGDEM members who advertise in such trade press should ask the journal's editor to ensure that any articles or news stories about CO alarms are checked (by a manufacturer or by CoGDEM) prior to publication.

#### **e) Carbon dioxide CO<sub>2</sub>**

At the end of our previous meeting when carbon dioxide (CO<sub>2</sub>) had been frequently mentioned, it was suggested that we monitor the ambient air in the meeting room to see how the concentration changed during the course of a day's meetings. Figaro Engineering brought along a CO<sub>2</sub> evaluation board linked to a laptop for datalogging purposes and Kazuaki Watanabe explained that he measured a peak of around 7000ppm (0.7%) during the morning meeting when only the recirculatory air conditioning system was in use. The monitoring was continued after the close of the CO Sub Group meeting, but a window was opened in the afternoon for additional comfort and the peak dropped to around 4800ppm (0.48%). The HSE guidance document EH40 lists the Workplace Exposure Limits as 0.5% (8-hour LTEL) and 1.5% (15-minute STEL).

### **9 Date of next CoGDEM meeting: Tuesday 18<sup>th</sup> October 2016**