

Minutes of Meeting

Document No CO-1449-15

Subject	CO Sub Group	Circulation	All members
Date	23 rd Feb 2016	Circulation Date	11 th March 2016
Location	CoGDDEM offices Hitchin	Circulation by	Website & email

Attendees

Leigh Greenham - CoGDDEM
Mike Byrne - Ei Electronics (Meeting Chair)
Tony Banfield - EXL/31/1 Chairman
Adrian Keats - Honeywell Analytics
Jonathan Kane - Kane International
Richard King - Honeywell Analytics
Martyn Whalley - Aico
Victor Aluko-Oginni - FM Approvals
Paul Basham - Crowcon
Graham McKay - BSI Global
Damian Cairns - Anton
Ian Ballinger - Sprue Safety
John Walsh - Sprue Safety
Brendan Simpson - FireBlitz
Peter Philpott - TPI
Craig Thompson - A1-CBISS
Andy Burnett - Kidde Safety
Matthew Herrick - GES
Julian Butler - Dara Solutions
Rob White - DD Scientific
Michael Hemingway - HSL/HSE
Arthur Burnley - Alphasense

Apologies

Colin Mitchell - Ei Electronics
John Sonley - JMS Consultants
Rob Lyon - Sprue Safety
Jane Howitt - Honeywell Analytics
Colin Hydes - Honeywell Analytics
Louise Early - Crowcon
Zoe Forman - Mandeville Marketing
John Darby - City Technology
Neil Perdell - Aico
Neil O'Regan - Shawcity
Andrew Keenan - CSA Global/Sira
Mike Murley - Testo
Phil Wild - Duomo
Kevin Mileson - GES
Jason Perrins - FireBlitz
Bernard Thomas - Kidde Safety

Agenda

- 1) Apologies and member introductions
- 2) Approval of previous minutes and matters arising
- 3) Lobbying activities (inc. All Party Group, Boat Safety, Wales, Europe and Holland)
- 4) Publicity update (inc. CO-Be Alarmed, BBC, landlord regs, Project Shout)
- 5) CO alarms standards review (inc. EN 50291-1 and -2, French concerns)
- 6) Flue Gas Analysis (inc. GAR success, BSRIA project, HETAS Guide)
- 7) Non-compliant CO alarms (inc. Trading Standards, Amazon)
- 8) AOB (including updates from HSE, CO in schools, helpline, new meeting venue)
- 9) Dates of next meetings – Tues 21 Jun 2016, 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 Dara Solutions founded by Julian Butler (ex-Shawcity).

2 Approval of previous minutes and matters arising

The Minutes of the previous meeting (13th Oct 2015, CO1448-15) 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 has been no progress despite his regular chasing.

3 Lobbying (inc. All Party Group, Boat Safety, Wales, Europe & Holland)

All Party Parliamentary Carbon Monoxide Group (APPCOG):

To enable commercial organisations to be involved with Parliamentary affairs, APPCOG has the 'All Fuels Action Forum' funded by industry (including CoGDDEM) and overseen by an Advisory Board that LG is part of. The next meeting is scheduled for 29 Feb, with the main Forum meeting one week later.

Since the last CoGDDEM meeting, the funding members have been sent details of various APPCOG and Forum activities, including Tourism Safety (Thomas Cook Safer Tourism Foundation launch), meetings of the Advisory Board and Forum, and a meeting of the SciTech sub group (led by Roland Wessling) at the Energy Innovation Centre in Ellsemere Port, featuring a presentation by Smart Compliance of some of the early data coming from the trials with the gas distribution companies.

Ongoing issues for the Group includes showing its frustration with the disparities in recent landlord regulations across the UK, the Smart Meter opportunity, tourism and leisure CO risks, and 'black spots' (to be discussed later in the agenda). The future role of CFOA and the regional Fire & Rescue Services is also on APPCOG's focus list, as is joint industry action on consumer CO awareness and medical practitioner knowledge, and monitoring the proposed sell-off of National Grid's gas distribution business which includes the emergency service provision via the national helpline number 0800 111 999.

Boat Safety

The Boat Safety Scheme (BSS) has successfully applied for Gas Safety Trust 'research' funding to equip some boat inspectors with portable gas detectors, to check the state of many of the boats which they visit. Kevin Miles of GES will lease the BSS some GMI Wheelmarked multi-gas detectors to assess and record the level of unsafe atmospheres the inspectors come across in recreational boat cabins (CO, CO₂, LPG or fuel fumes, low O₂). GES is working with Logic Certification to put together an e-learning course on CO for BSS boat inspectors, and this may also be useful for those FRs who conduct residential boat visits (who may also use some of the BSS's GMI instruments).

The second application that BSS submitted to GST was not successful. This would have been for behavioural research into the category of boat users who are most at risk, using Reading University academics and a PhD student. Future funding from Gas Safe Charity for publicising the research outcomes is another possibility.

Public Health Wales:

CoGDDEM continues to support the Welsh initiatives and Zoe attends their regular meetings in Cardiff and reports back to her publicity sub group. At their January meeting, some time was spent discussing the CO fatality in Pembrokeshire from the faulty installation of a wood-burning stove. It had been discovered that some 500 stoves have been installed by the same non-HETAS registered fitter, so an exercise is being undertaken to contact all users of these stoves and provide them with CO alarms. As well as faults with the installations, no CO alarms were fitted despite this being a legal requirement.

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Europe:

As Zoe wasn't present today, LG gave a brief update on the European project, with input from Jonathan Kane.

The European project run by the 'lobbying' company ADS Insight continues to promote CO awareness in Brussels EC circles. The recommended changes to the Gas Appliance Regulations have now received positive votes within the European Parliament and Commission but the other focus on the European travel industry and the safety of accommodation is not making much headway despite ongoing meetings and briefings. There will be another 'roundtable' event in Brussels sponsored by this group of CoGDEM members, planned for 26th April. A full briefing note on ADS's imminent activities was shown to the meeting, with relevant members previously receiving full details of the five areas of focus:

- Collecting EU incidents of CO deaths & injuries
- EU Parliament Annual CO Round Table
- Launching an online EU exchange platform on CO
- Monitoring / lobbying EU institutions & relevant trade associations
- Safety of European Tourism Accommodation

Jonathan Kane has been a very active member within the EU project, and considers that another European organisation might want to take part in some joint projects with ADS Insight. He has proposed this to the German FGA trade association FIGAWA who are now showing more interest than previously, and may be willing to co-fund some or all of the ADS project as it moves forward.

Netherlands:

At the end of 2015, the Dutch Safety Board produced a high profile report about the risk of CO poisoning within the Netherlands, primarily due to the lack of appliance inspection and maintenance regimes and no national regulation for the competence of engineers dealing with gas appliances. The report also referenced the earlier Prosafe report and mentioned the role and reliability of domestic CO alarms, and made some hard-hitting recommendations to the Dutch government. To ensure the report is not overlooked, JK had suggested the formation of a small CoGDEM NL sub group, using a Dutch PR specialist to arrange meetings with politicians, regulators and media. This project is now active and being funded directly by those companies involved (manufacturers of CO alarms and FGAs) with the following four aims:

- Increase CO awareness
- Increase installation of EN 50291 approved CO alarms in homes
- Ensure appliance installers are registered and competent to work
- Ensure appliance installers use EN 50379 approved FGAs

The Dutch consumer safety authority NVWA wants to conduct some surveillance tests on CO alarms, so LG and JK attended their office on 22nd Feb to highlight the care needed when selecting a suitably accredited test laboratory and relevant test criteria to determine true compliance with EN 50291. Today's CoGDEM discussion listed approved test laboratories as being (UK) BSi, Sira/CSA Global & LPCB/BRE, (Germany) Dekra/Exam & BAM and (France) CNPP & LNE. Mike Hemingway confirmed that HSL in Buxton has good experience of testing domestic CO alarms but EN 50291 is not within their UKAS scope.

4 Publicity update, inc. CO-Be Alarmed, BBC

CO-Be Alarmed - This Energy UK-funded awareness campaign has run for many years, but staff changes within Energy UK and their chosen PR agency (Fishburn Hedges) had led to a disjointed and somewhat last-minute approach this year. CoGDEM's view remains that this campaign should be merged into a larger campaign funded by Energy UK and ENA (the association of gas distributors) but there doesn't seem to be the will on either side to do this despite prodding by the All Party Group.

In October we were approached by FH a week before the media launch of this year's campaign, to provide a donation of CO alarms in time for coverage on ITV's 'Good Morning Britain', BBC Radio 2's Jeremy Vine Show and over a dozen local radio stations. LG took part in the radio interviews alongside a celebrity victim of CO (singer Nadine Coyle from 'Girls Aloud') who was poisoned by a water heater in her Californian home with a cracked heat exchanger. The campaign also held the usual Parliamentary event in January, where MPs are invited to attend a photographic session to show their support for the campaign. LG will ask for a list of attendees and their constituencies so CoGDEM members can make use of the local publicity.

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Project Shout - As mentioned at our previous meeting in October, Sprue had set up 'Project Shout' to give a higher profile to CO alarms, using Stacey Rodgers' story made into a TV ad. Members were encouraged to look at the project's website. In Rob Lyon's absence, John Walsh told members that after great launch coverage last year, the 2016 coverage has been equally successful so far, with the advert shown on some commercial TV channels and news reports on various ITV and Channel 5 programmes. John said that Sprue is likely to take 'Project Shout' into Europe and may give other CoGDEM member companies the opportunity to participate, so interested parties should contact Rob Lyon at Sprue.

BBC One's 'Fake Britain' - Good publicity for compliant CO alarms was gained at the end of November when the relevant episode was eventually screened; we hope for a repeat screening at a more prime time. Graham McKay was interviewed as part of the filming at the BSI Loughborough labs after some surveillance testing of non-compliant CO alarms was undertaken there for the BBC.

BBC One South's 'Inside Out' – LG was invited to be the APPCOG Forum's technical spokesperson to be interviewed as part of a 10-minute feature on CO poisoning aired in February. After highlighting the Katie Haines and Roland Wessling cases, the programme focussed on the recently introduced landlord regulations, allowing LG to suggest that tenants in England were not as well protected by Government regulations as tenants in Scotland or Northern Ireland. The Housing Minister Brandon Lewis said these things were always under review, and a balance of regulation had to be achieved. At today's meeting JK pointed out that these particular English landlord regulations are on a two-yearly review cycle, so campaigning is still worthwhile.

5 CO alarms Standards review (including EN 50291-1 & -2, French concerns)

EN 50291-1 – Mike Byrne and Tony Banfield updated the meeting. The Working Group's efforts to update the standard have progressed well, and new test clauses have been agreed as discussed previously (e.g. radio link tests). John Walsh said that the slight modification to the required concentration of test gases A & B was quite urgent as the current possibility of showing no alarm at 36ppm but an alarm at 50ppm is too close. The French are apparently still suggesting that the first true alarm threshold be reduced so that alarms are activated at lower concentrations, but this has not been enacted in the latest version as the WG members disagree.

At our last meeting it had been hoped that if CENELEC introduced a deliberate delay to the publication date of this new version of the standard, this would allow the CENELEC appointed consultant to create the new Annex and make the other editorial changes necessary to allow EN 50291 to be a listed harmonised standard under the European Construction Product Regulations (Mandate M109). This would then make proven compliance with EN 50291 compulsory before the CE mark could be applied to CO alarms.

Mike Byrne reported that the Working Group is making some progress on getting the "Answer to the Mandate M109" agreed with the consultant – hopefully within a few months. The standard will then need re-drafting and an Annex ZA and a section on the constancy of production to be added. This will then need to be reviewed by the consultant and then the Commission. This will obviously take time, hence the EN 50291-1 revised standard should be published ASAP and then the CPR changes can be handled subsequently as an Amendment.

LG expressed his frustration at this further delay to the standard becoming mandatory, and asked members to suggest any ideas for getting CENELEC to speed up this process.

EN 50291-2 – Amendments to the recreational craft version of the standard have been made, primarily to improve the EMC testing of cabled CO detectors. However, the UK voted negatively when the draft was circulated, as the wrong version had been supplied. Although it was a technicality, our negative vote should allow the Spanish convenor to 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. The French have concerns that several of the -2 tests are impossible to conduct, so they cannot understand how there can be -2 compliant product available.

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6 Flue Gas Analysis

Standards: The revision to TS 50612 (European guidance on the use of FGAs) is now finalised and might indeed be published this March. This will take the 'Technical Specification' document from solely covering gas boilers to most domestic gas-fuelled appliances, so making it a useful document to promote in those European countries where there is currently precious little guidance for combustion appliance engineers.

As mentioned previously, the helpful changes to the Gas Appliance Regulations could be useful when discussing competent engineers' usage of FGAs across Europe, and JK suggested an international version of Technical Bulletin 143, well known in the UK for publicising CO limits when commissioning gas-fired boilers.

JK had previously proposed a standard for the accuracy of gas-pressure instruments, as although the pressure sensing characteristics of an FGA are covered by EN 50379, a standalone electronic manometer has no such standard. JK took an action to create a first draft by using EN 50379 as a template and removing all the clauses not relevant to pressure sensing, and a working document is now ready to be circulated to CoGDDEM members before being submitted to EXL/31/1 and onwards to the European committee TC216, if it is agreed that the gas detection committees are the correct home for the project.

LG mentioned that the new 2016 HETAS Guide not only contains listings of relevant CO alarms, but TPI and Anton have added their range of FGAs and associated equipment alongside Kane's listings.

7 Non-compliant CO alarms (inc. Trading Standards Partnership, Amazon)

As mentioned at our last meeting, West Sussex Trading Standards had released some unhelpful publicity after their surveillance testing of domestic CO alarms, which produced some strange results from CSA Group/Sira's tests (probably due to the test chamber arrangement and an inability to instantly flood the CO alarms with gas). WSTS contacted EXL/31/1 about the EN 50291 standard and LG helped to coordinate a response.

CoGDDEM members can make use of our Primary Authority Partnership arrangement with Oxfordshire Trading Standards, and Ei Electronics has already done this to investigate and discuss the legality of global internet markets where safety products are delivered without instructions in the native language. This led to further discussions today about what actions should be expected of internet market place providers such as Amazon when unsafe products are spotted on their website. Andy Burnett explained recent developments where Amazon explained to Kidde that if two or more product reviews (by consumers not competitors) mention safety concerns, then they will take action. It is also hoped that CoGDDEM could be allowed to share any such product concerns directly with an appropriate person within Amazon, wherever that person might reside.

The APPCOG Manager had been contacted by the chairperson of the Medical Professional's Sub Group to say "*to my horror*" she had received through her letterbox a junk-mail pamphlet leaflet from Robert Dyas advertising a pair of CO colour indicating patches (aka 'black spots') stating "No need for batteries or wiring - perfect for travel, caravans and boats". She asked "*Is there a way we can enlighten Robert Dyas?*", and the APPCOG Manager suggested a letter to the retailer from the Group pointing out the well-documented weaknesses of the products. In subsequent discussion LG had heard that another high street retailer (Wilkinsons) was also still stocking such devices, despite the weaknesses having been pointed out to them in the past. It was suggested that as a matter of courtesy, the two retailers might be grateful to be informed in advance that they were likely to receive a letter from the APPCOG, and this had been done by the two CoGDDEM member companies who have a trading relationship with those two retailers for EN 50291 compliant alarms.

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8 AOB (including updates from HSE, CO in schools, helpline, new meeting venue)

a) HSE

Mike Hemingway told the meeting that the report has now 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 increased use of flueless gas appliances and lower ventilation rates. LG mentioned that he had informally seen the first draft of the report and had given feedback that although the CO findings were not necessarily worrying, the same was not true with CO₂, where levels of up to 1.9% were measured. There were other concerns raised about how the appliances were loaded for the tests (e.g. gas hobs lit without pans in use, so unlikely to create CO) and possible inconsistencies with the chosen sampling points. The CO₂ findings were somewhat buried in the report and didn't appear in the Executive Summary or Conclusions, but Mike was able to show that this had been changed in the final version of the report, which will soon be released by the project's sponsors.

The long awaited report on gas emissions from the mass storage of wood pellets and woodchips has still not appeared due to a backlog of HSE report releases, but an abstract should appear in the March edition of the 'Journal of Occupational and Environmental Hygiene'.

b) GASG

The next meeting of the Gas Analysis and Sensing Group will be on 21st April 2016 at Cranfield University's Bedfordshire campus, encouraging young people and students to make brief presentations on projects relevant to gas sensing.

c) CO in schools

LG mentioned that Phil Wild (Duomo) and Graham McKay (BSI) are part of the IGEM working group revising UP11 covering ventilation in schools. Recently the relevant UK Government agency dealing with school building infrastructure had sent LG the latest version of document BB101, which has a mention of CO detection in classrooms adjoining boiler rooms or other at risk spaces. LG pointed out that EN 50291 specifically covered CO alarms for domestic applications, and a reference to the workplace toxic gas detector standard EN 45544 might be appropriate.

d) Liverpool John Moores University Project

After the All Fuels Forum's SciTech sub group meeting at EIC in Ellesmere Port in December, I reported to relevant members the following three points about the LJMU CO project:

- LJMU main project now has 500 logger files, hopes to generate 2500, but results will be delayed to Dec 16 due to FRS cutbacks, however Mark Jones of Merseyside FRS very enthusiastic and pushing the other 5 FRSs
- LJMU has new PhD student looking at the impact of CO incidents, and will interview victims to learn lessons of the "lived experience"
- LJMU also working on design of barbecue briquettes that would minimise CO production

After asking Andy Shaw of LJMU whether this was the latest update to give to today's meeting, he responded:

"That seems a reasonable reflection, what I would add is that thanks to Mark Jones from MFRS we now have Suffolk FRS on board and they are gearing up to acquire data as well as interest from Wales, Scotland, NI and Humberside. Currently we have Suffolk, West Yorkshire, Bedfordshire, West Midlands, Merseyside, Oxfordshire and Cornwall all uploading data. We are also collecting data in conjunction with NEA of 40 houses in the North East which has a more detailed questionnaire. We are also starting to work on looking at CO diffusion through building fabrics with our terraced houses research facility on Campus. The houses are built from the 1920-30's, 1960-70's and up to date. This gives us a unique opportunity to simulate the release of CO within them and see how it propagates through the different houses and from house to house. It is hoped that in early 2017 we will be having several events to disseminate the results both in Merseyside and at Westminster organised through the Gas Safety Trust."

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e) CoGDEM's CO Helpline

LG mentioned that Andy Shaw's comments above were timely, as CoGDEM's helpline had twice recently been asked to help a lady whose CO alarm activations were ultimately determined to have been caused by migration of CO from a neighbour's Parkray type solid fuel burner. Earlier in the investigation by BG and WWU it seemed most likely that her own 32 year-old gas-fired back boiler was the cause, so this was replaced at some expense to the lady, yet the alarm activations continued. The integrity of the Victorian brickwork of the party-wall and chimney are now being investigated.

LG related the New Years Eve call from a lady with a strong accent who believed her CO alarm activation was a false alarm until she described the ethnic cooking she had been doing for an evening party, with tin foil covering the gas hob and no external ventilation to the kitchen.

In December, a worried mother reported that she and her young son were showing high levels of breath CO when using a maternity breath analyser, but her home had been declared CO-free. LG explained a potential hydrogen cross sensitivity of the CO sensor and the caller was told that their known lactose intolerance was a likely cause of hydrogen in their bloodstream after consumption of dairy products. This hydrogen symptom is well-known to gastroenterologists, so hydrogen breath exhalation testing is often used as an indicator of certain gastric problems.

f) Carbon dioxide CO₂

At several points in today's meeting, carbon dioxide (CO₂) had been mentioned. LG pointed out that CoGDEM member SST Sensors had asked about recent regulations in Scotland where new-build housing that has low air circulation rates (so as to be thermally efficient) may develop high CO₂ concentrations which the residents need to be aware of so that they can take necessary actions to manually ventilate their property. This has led to a new regulation for a CO₂ monitor to be mounted in the principal bedroom of appropriate properties. More details can be obtained from another Scottish sensor company GSS (Alan Henderson) who has been involved behind the scenes.

g) CoGDEM meeting room changes

LG announced that as from our next meeting in June, the venue will be Unit 9 in the same building, accessed from a different external door on the other side of the building. The change has been brought about by the imminent end of the leasing period on the current space occupied by the STA/CoGDEM. With the STA now conducting significantly fewer training events, the CoGDEM share of the rent could have increased, so Dave Curtis has negotiated a very good deal with the landlord. Air conditioning and better broadband are included.

h) EU Directive number changes

Although not mentioned at this meeting, during the afternoon Industrial Safety meeting Richard King mentioned that the numbering changes to the LVD and EMC Directives would also affect those manufacturers of domestic CO equipment. The standards have not necessarily changed, but Manufacturer's Declaration of Conformity documents for CE marking purposes will need to be updated with the new Directive numbers as follows:

- o EMC 2014/30/EU (replacing 2004/108/EC)
- o LVD 2014/35/EU (replacing 2006/95/EC)

9 Dates of next CoGDEM meetings

Tuesday 21st June 2016 (AGM), then Tuesday 18th October 2016