

Minutes of Meeting

Document No CO-1432-10

Subject	CO Sub Group	Circulation	All members
Date	22 nd June 2010	Circulation Date	9 th July 2010
Location	CoGDEM offices Hitchin	Circulation by	Website & email

Attendees

John Saffell - Alphasense
Jonathan Kane - Kane International
Jonathan Gilby - City Tech
Kevin Stockwell - Trolex
Gus Bol - Trolex
Leigh Greenham - CoGDEM
Mike Windsor - Anton
Mike Byrne - Ei Electronics
Gavin Boorman - GfG
Hans Hubner - GfG
Tom Tonkins - Testo
Roy Taylor - Testo
Arthur Burnley - Alphasense
Peter Walsh - HSE/HSL
Peter Philpott - TPI
Paul Walton - Shawcity/Ion Science
Ian Robertson - Analox
Steve Roberts - Envin
Steve Hamilton - Honeywell Analytics
Raxa Chauhan - Crowcon
Tim Wilkes - Crowcon
Steve Robinson - Draeger
Gavin Peacock - Draeger
Bernard Thomas - Kidde
Richard King - Sira
Ross Bates - FireAngel
Kevin Dean - Xtralis/ICAM
Zoe Forman - Mandeville Marketing

Apologies

John Sonley - JMS Consultants
Jeff Regan - JMS Consultants
David Woods - General Monitors
Martin Harrop - General Monitors
Pat Roberts - Envin
Chris Street - Scientific & Tech Gases
Richard Smith - Draeger
John Walsh - Fire Angel
Adrian Keats - Honeywell SF
Colin Mitchell - Ei Electronics
Roger Riley - Geotech
Dave Curtis - STA
Kevin Honner - Draeger
Terry Brown - e2v technologies
Kevin Brown - e2v technologies
Philip Wild - Duomo
Nick Ludlam - FM Approvals
Lionel Witrant - ISC/Oldham
Peter Sullivan - Testo
Andy Avenell - Crowcon
Tony Banfield - GEL/31/19 Chairman
Carl Ritzberger - Honeywell Analytics
George McGregor - GMI
Ron Webb - FM Approvals
Eddie Quigley - QMI
Louise Early - Crowcon

Agenda

- 1) Apologies and member introductions
- 2) Approval of previous minutes and matters arising
- 3) Lobbying activities (inc. Building Regs outcome)
- 4) COCAA (CO Consumer Awareness Alliance), future changes and next campaign - ZF
- 5) Standards review (including EN 50291 proposals, EN 50292 update)
- 6) Flue Gas Analysis (inc. condensing boilers, HHIC collaboration, EN 50379) - JK
- 7) Gas Industry Safety Group update (GISG), 2010 Safety Awards - JK
- 8) Gas Safe Register update
- 9) Boats and leisure vehicles (results of CO build-up tests in caravans)
- 10) AOB (including updates from HSE, GL-Advantica, helpline)
- 11) Date of next meeting – Tuesday 19 Oct 2010

Minutes of Meeting

Document/ file: CO1432-10 meeting minutes 22-06-10

1 Apologies and member introductions

The above list of apologies was read out. Jonathan Kane explained that the CO Sub Group Chairman, Jason Perrins, had resigned and left the industry due to the marketing side of his company BRK/Dicon having been taken over by FireAngel. Jonathan said that he would chair today's meeting in his capacity as Deputy Chairman, until a new Chairman was elected at the forthcoming AGM after lunch. Members introduced themselves around the table.

2 Approval of previous minutes and matters arising

The Minutes of the previous meeting (23rd February 2010) were read and accepted (Doc no. CO1431-10). Matters arising were covered during the rest of the agenda.

3 Lobbying (including Building Regulations outcome)

Building Regs: The finalised Building Regulations, Approved Document J which covers combustion appliances will come into force in October 2010, and is now downloadable from the DCLG website at: http://www.planningportal.gov.uk/uploads/br/BR_PDF_ADJ_2010.pdf

It is pleasing to see that CoGDEM's recommendations were included, so carbon monoxide alarms now feature in several places throughout the document, including Section 1 (page 17), *Provisions which apply generally to combustion appliances*:

Whilst, for the purpose of requirement J2A, it is considered appropriate to require carbon monoxide alarms only with solid fuel appliances, such alarms can still reduce the risk of poisoning from other types of appliance.

Also, on page 41 entitled *Carbon monoxide alarms*, the previous recommendation to use only sealed-for-life battery types, has been extended to allow mains-powered devices where appropriate, but only if they have an end-of-sensor-life warning. The alarm siting information has been extended to include a reference to EN 50292 and manufacturers' instructions.

HSE tests of CO alarms: It has taken longer than anticipated to get the tests underway, mostly due to Gas Safe Register's inspectors not coming across many CO alarms in the homes that they visit. The search for 100 assorted alarms is now nearing completion and these are being fed to Peter Walsh at the HSE in small batches. He has tested six units with one failure, although LG expressed his view that this was a marginal failure as the unit alarmed after 3 minutes and 10 seconds, rather than the 3 minute limit defined in EN 50291.

HPA & Environmental Health: CoGDEM gave a CO alarm presentation at a West Midlands HPA event aimed primarily at Environmental Health practitioners. After the event, several EHOs asked LG for data on suitable instruments to protect themselves or investigate CO emissions.

All Part Parliamentary Gas Safety Group (APPGSG): There will be a post-election relaunch of the APPGSG on 13th July, which will be attended by LG and Zoe Forman, possibly by other CoGDEM members also. The focus as always will be on domestic gas safety, with a particular emphasis on CO. CoGDEM will be ready to remind the APPGSG of some key lobbying points that the APPGSG may be inclined to help with, such as the mandatory application of EN 50291 for all CO alarms entering Europe, requirement for ESPs to have CO detection instruments, and landlord's safety checks to include an appliance test for CO and/or CO₂.

Cross-Ministerial CO Working Group: The officials from any Government department that has activities related to carbon monoxide will have their second meeting on 24th June. LG wrote to the HSE (as they seemed to be coordinating the agenda) to offer CoGDEM's assistance in updating the Working Group on CO related initiatives that industry has been undertaking. The HSE agreed to put this offer to the meeting and report back.

4 COCAA (CO Consumer Awareness Alliance) future changes and next campaign

Zoe Forman presented a PowerPoint update to the meeting, covering the results from the 'Carbon monoxide – Be Alarmed' campaign which had a big TV, radio and media campaign running from January to March using Kirstie Allsopp as the celebrity spokesperson. The campaign was very successful, more TV coverage than the previous year (21 million equivalent viewers), plus a great spread of printed magazine and web coverage, particularly from lifestyle-type media. The MP drop-in event saw 53 attendees, each photographed with a domestic CO alarm.

Minutes of Meeting

Document/ file: CO1432-10 meeting minutes 22-06-10

This year's campaign will again be funded by the gas supplying companies making up Energy UK (new name for ERA, Energy Retailers Association), aiming to start targeting certain groups from October 2010 (landlords and builders, for example), with the main consumer campaign in January 2011. It is possible that Richard & Judy could be the celebrities to front the campaign, since their own near-miss from CO poisoning this year, but their fees may prohibit this. Zoe passed around the Woman's Own magazine feature on the couple's incident.

COCOA may go through some changes in the future, in an effort to get more engaged with Gas Safe Register, who will not be involved for as long as the group is seen to be managed by the ex-CORGI Trust guys at the renamed Gas Safety Trust. Zoe and LG are working behind the scenes to ensure that there is a positive outcome, and it is helpful that we have volunteered to host the next COCAA Steering Group meeting at CoGDEM in Hitchin on 20th July.

Tim Wilkes (Crowcon/Telegan) asked about COCAA's key messages, as it would appear that in the US, the strong messaging, legislation and procurement of domestic CO alarms has led to a decrease in the demand for the servicing of heating appliances. COCAA's messaging has always promoted that the correct installation, service and maintenance of heating appliances is the first priority, with CO alarms as a back up. The wording (as seen in British Standards and the new Building Regs) is that CO alarms should not be regarded as a substitute for the regular servicing of appliances by properly registered tradespersons.

JK asked Zoe to put together a key messages PowerPoint for members to share with MPs at their place of work and home to continue influencing of parliamentarians after the campaign. JK reminded members that influencing their own MP, e.g. during a factory visit, was probably as important as any national lobbying possible by CoGDEM, especially as regional and local newspapers always print CO stories compared to more muted reaction from National Press.

5 Standards review, domestic CO alarms (including EN 50291 proposals, EN 50292 update)

The European domestic gas detector committee, TC 216 met in Germany on 18th March. The UK and CoGDEM was well-represented at the meeting, with Tony Banfield (Chair of TC216), Peter Walsh, Jason Perrins and Jonathan Kane attending.

EN 50291-1 and EN 50291-2: The revised carbon monoxide alarm performance standards will be published in 2010, with -1 covering domestic dwellings and -2 covering recreational vehicles.

At the TC216 meeting, the French national committee continued to voice their opinion that the alarm thresholds should be reduced, including a proposed 10 ppm 8-hour first trigger point. The compromise suggested by the UK was that if a manufacturer wanted to include a health-alert feature at low ppms, such features could be mentioned in EN 50292, but not tested under EN 50291. The UK was asked to make proposals.

The UK delegates put forward the opinion that the new generation of sealed-for-life battery units are not sufficiently covered by the standard, and that some form of testing needs to be applied to ensure that the batteries are capable of meeting the alarm manufacturers' claims of very long life. The UK was asked to make proposals.

A discussion was held as to whether EN 50291 should specify consistent techniques for identifying fault conditions, such as an amber LED and audible 'chirps' for low battery, end-of-unit's-lifetime, sensor fault. The UK was asked to make proposals. Once again there was discussion but no conclusion on ways that the standard may be made a mandatory requirement for CO alarms entering the European market.

The discussion as to whether Europe has any interest in developing a new standard for combined CO and smoke alarms, as these are only available with UL compliance at present, also led to a request for the UK to make proposals. With the UK asked for so much input, today's CoGDEM meeting suggested that all CO alarm manufacturers and other interested parties hold a separate sub-group meeting to discuss all of the standards-related issues.

Action: LG to arrange meeting

EN 50292: the guide for use of CO alarms needs to be updated, and Peter Walsh hopes that more progress can be made in the light of the results from the caravan tests, see item 9 below. This standard can also be discussed at the meeting of the CO alarm manufacturers proposed above. LG suggested that where this standard needs data on the health effects of CO, our contacts at the HPA could be called upon to give expert advice.

Minutes of Meeting

Document/ file: CO1432-10 meeting minutes 22-06-10

6 Flue Gas Analysis (including condensing boilers, HHIC collaboration, EN 50379)

Following the visit to CoGDEM in February by Chris Yates, the HHIC (Heating and Hotwater Industry Council) asked us to make two presentations about the use of FGAs in the servicing and commissioning of boilers and other gas appliances. LG attended the HHIC at their Kenilworth HQ twice in May to present to two of their subgroups. It is hoped that this will lead to some collaboration between users and manufacturers of FGAs. LG also presented some data from the Japanese company Citizen, who have developed a high temperature CO sensor for flue mounting, which CoGDEM had seen in a presentation from Advantica. HHIC members did not seem very interested in the sensor. If CoGDEM members have an interest, contact LG.

We also attended a meeting hosted by the HHIC at which four HSE employees interrogated the boiler manufacturers about the measures that they had taken since the meetings last year about gas/air ratio valves in condensing boilers. There is now (apparently) a consistent approach being taken by all boiler manufacturers about the mandatory need for a combustion gas check at the annual service, but not at the initial commissioning.

There had also been a subsequent meeting between CoGDEM and the HHIC about the Benchmark scheme for recording the correct commissioning of gas boilers, and the suggestion that the paper form could be available in an electronic format, so that FGA readings could be automatically downloaded. The HHIC agreed to investigate the likely costs of producing an electronic version.

EN 50379 is the standard that governs the performance of Flue Gas Analysers, and it has been agreed to update this standard, in particular to include tests that can be performed on the new generation of instruments that use direct reading CO₂ sensors, rather than this being calculated from a measurement of oxygen depletion. With such CO₂ sensors likely to use infrared absorption techniques, the existing tests within the standard are not entirely appropriate. Testo and Crowcon/Telegon had already submitted some comments to Jonathan, as he will convene the UK's input to the European Working Group. John Saffell added that asking IR sensors to be accurate at 5-18% vol CO₂ as well as at 500-2000ppm was a tall order. Hans Huebner considered that this would make a fundamental change to the standard and to the instruments themselves.

There was strong support for a separate sub group meeting of FGA and IR sensor manufacturers to discuss this.

Action: LG and JK to arrange meeting

Jonathan Kane also updated today's meeting on pr EN 50543, the new draft standard for the performance requirements of handheld CO and CO₂ instruments. A conference call of the Working Group had taken place yesterday, during which all of the formal comments were reviewed and incorporated into a final draft of the standard. It was interesting that only Germany and Spain submitted comments. Members wishing to see this draft can request a copy from LG. Carbon dioxide monitoring was also an agenda item for this afternoon's Industrial Sub Group meeting, see separate Minutes for details.

A question was asked about the likely population of FGAs amongst heating engineers now that the CPA 1 assessment has been available for some time. Agreed estimates would suggest that around half of the Gas Safe Registered installers have an FGA, so around 60k analysers are in use. Around half of these (30k) are used by engineers who have taken the CPA 1 assessment.

7 Gas Industry Safety Group (GISG), 2010 Safety Awards

Jonathan Kane has attended several GISG meetings over recent months. The GISG is heavily promoting its safety awards dinner event to celebrate its 10th anniversary this year. CoGDEM members are being encouraged to nominate products or services for an award, or can sponsor individual awards. It was suggested that CoGDEM's own CO freephone helpline for CO issues could be nominated, due to the success that it has had in dealing with out-of-hours issues across all fuels. Perhaps this is a bit self-serving? It was suggested that LG talked to the organisers to gauge their opinion.

Action: LG

CoGDEM's continues to seek GISG's assistance in lobbying for the following three issues:

- The use of CO detection instruments by the gas emergency service providers, as recommended by the HSE review of gas safety in 2000 and picked up by the Ofgem working group
- The need for a formal feedback mechanism after a Gas Safe engineer has attended a property as a result of a call to the ESP
- Landlords' gas appliances should require an annual service and test, not just a safety check

Minutes of Meeting

Document/ file: CO1432-10 meeting minutes 22-06-10

8 Gas Safe Register update

CoGDEM sent a response to Gas Safe Register's 'Enforcement Review', mentioning the need for increased publicity after any HSE prosecutions of unsafe gas work, especially those involving CO.

We are now members of their National Stakeholders Group, an inaugural meeting is expected soon.

GSR was grateful to us for informing them of John Stones' new company name 'Gas Safe Europe', and they have got their solicitors involved.

As mentioned in item 3 above, the GSR inspectors have not come across as many CO alarms in domestic dwellings as anticipated, perhaps suggesting that the estimated population figure of 20-24% of homes having alarms is exaggerated. However, the Inspectors are generally visiting homes where there has been a problem, and such homes may be statistically less likely to have bothered installing an alarm. LG has an ongoing dialogue with Ross McTaggart of GSR on this issue.

GSR is taking an active role with the HSE in dealing with the 'flues in voids' issues. In summary, boilers not fitted onto outside walls may have their flues extended by running them horizontally in the cavities between floors and ceilings. There have been CO fatalities from poorly fitted flues, and inspection hatches must now be provided, but for the 50,000 or so affected properties, GSR will be strongly recommending that CO alarms are fitted. They intend to release a Technical Bulletin stating this at the beginning of October. Taking into account adjoining properties and Houses of Multiple Occupancy (HMOs), there could be a demand from installers for up to 120,000 CO alarms this autumn, so GSR contacted CoGDEM so that we could inform the alarm manufacturers of this potential surge in demand from the trade.

Action: CO alarm manufacturers to take note

9 Boats and leisure vehicles (results of CO build-up tests in caravans)

Two days were spent at a caravan manufacturer's factory in Hull in May to undertake the agreed project to look at CO build up from a cooker within the confined space of a typical caravan. LG set up a six-channel industrial CO detecting system that was generously loaned by one of CoGDEM's Industrial Sub Group (Trolex). Also in attendance were John Walsh (FireAngel), who is on the NCC's Technical Panel, and the HSL's Peter Walsh, as well as an NCC representative and two guys from the cooker manufacturers, Thetford Spinflo.

LG displayed some photos and graphs. Some very surprising results were achieved, such as using (abusing) the cooker and grill just to heat the air (rather than actual cooking) did not produce much CO at all (perhaps 10-20ppm). However, loading the hob with larger flat-bottomed pans than the max recommended (i.e. 9" pans used rather than 8" pans) started to produce consistently high volumes of CO (100-200ppm). Dangerously high levels of CO (>300ppm) could be seen when the appliance was set-up to simulate poor maintenance, high gas pressure and poor ventilation, then loaded with pans of cold water.

It was interesting that even after 30-minute tests with the cooker on, the CO remained in the hot air at the top half of the caravan's interior space, and had not spread to lower levels, where two of our CO sensors were mounted (one at pillow level in the sleeping area and one on the dining table). Only when we remotely turned on a couple of fans did the air mix so that CO was seen at these low heights.

We are now pushing the NCC to convene a meeting to discuss the results in detail, draw appropriate conclusions, make interim recommendations to the caravan industry and suggest any further test work. Such further tests could include motorhomes and boats.

Having discussed these results briefly with the Boat Safety Scheme (Graham Watts), they may affect some of the guidance to be included in the imminent re-write of their CO leaflet for boat owners, which CoGDEM members agreed to pay printing costs. CoGDEM, through the BSI committee GEL/31/19 has 'complained' that a proposed ISO standard for CO alarms on boats makes UL 2034 compliance mandatory, and makes no mention of EN 50291, despite the standard being aimed at a worldwide audience including Europe.

Minutes of Meeting

Document/ file: CO1432-10 meeting minutes 22-06-10

10 AOB

a) HSE

On the HSE's Gas Safety Advice website, they have now installed a 'landlords' web tool' to clarify the particular risks and responsibilities that apply to the rented housing sector, see

<http://www.hse.gov.uk/gas/landlords/index.htm>

b) Cranfield University's CO project

John Saffell informed the meeting that Cranfield University is investigating CO dispersion in buildings, but looking at low levels in the 0-10ppm range, simulating poor urban air quality that might lead to longer-term health effects, rather than acute poisoning from faulty appliances or installations.

c) GASG seminar 'Gas Sensors in Marine Applications'

Gas detection on boats of all sizes is the subject of the next seminar being put on by the Gas Analysis and Sensing Group in Portsmouth on 7th October, see their website www.gasg.org.uk. CoGDEM has arranged for Graham Watts of the Boat Safety Scheme to talk about CO and flammable gas alarms on small craft.

d) CoGDEM's CO Helpline

LG gave an update on recent calls to the helpline, including the incident where 3 domestic CO alarms were simultaneously triggered by high levels of hydrogen from a bank of lead-acid batteries being severely overcharged. It was suggested that alarm manufacturers consider adding this phenomenon into their instruction manuals' troubleshooting guides.

The call from Hackney mentioned below, also included information that since installing their first batch of CO alarms, they are receiving quite a few calls about alarm events, but 95% of these have been due to tenants' cookers, especially from the ethnic communities doing mass cooking with large pans for hours on end.

e) Detectagas

Mike Byrne asked if there had been any more dealings with Detectagas. LG advised members that he had recently taken a call from Hackney Borough Council who were starting to install over 20,000 CO alarms, and had been contacted by John Stones to say that these alarms should be tested monthly with Detectagas. Hackney was pleased to get correct information from us on which to base their plans for future maintenance and testing.

There has also been the communication with GSR over the name chosen for Detectagas's new holding company, Gas Safe Europe, see item 8 above.

f) Regulation on Accreditation and Market Surveillance

Some weeks prior to the meeting, LG had circulated a BIS document about the market surveillance of CE-marked products. Kidde had pointed out that this could have positive implications for the CO alarm market, as the proposals appear to give HSE more powers to remove dangerous products from the market, without Trading Standards involvement. Interested parties can download the document from:

<http://www.bis.gov.uk/assets/biscore/business-sectors/docs/10-914-market-surveillance-and-ce-marking-regulation-consultation>

g) UL-EU marking

It appears that UL are now offering a new service in the US where they will test products to European standards, then allow compliant products to carry a new UL-EU logo as shown below. If such a mark was applied to a domestic CO alarm compliant to EN 50291 but tested by UL, then the consumer could face a confusing situation when they have been recommended to buy an alarm that complies with EN 50291 rather than UL 2034. Details on the UL scheme can be found on their website at:

<http://www.ul.com/global/eng/pages/offering/services/marketaccesssolutions/uleumark/index.jsp>



11 Date of next meeting: Tuesday 19 October 2010, 10am start