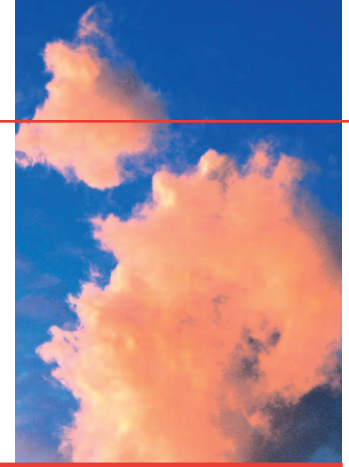


Council of Gas Detection and ENVIRONMENTAL MONITORING (CoGDDEM)



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GAS Detection

About the Authors

John Saffell is Technical Director of Alphasense and Chairman of CoGDDEM. Leigh Greenham is Administrator of CoGDDEM, responsible for day-to-day running of the Association. The authors gratefully acknowledge earlier work by the late Tom Bird on the beginnings of CoGDDEM.

A BRIEF HISTORY: The Early Years

In 1974 the British Standards Institute held a meeting at Hemel Hempstead, inviting most of the of flammable gas detection equipment manufacturers, plus BASEEFA and SIRA. The purpose of the meeting was to discuss a draft document in preparation, titled "Technical requirements for Automatic Combustible Gas Alarms". During the meeting a BSI representative said that it was a pity that the industry did not speak with one voice, rather than contradicting each other. Following this comment, several manufacturers held an informal meeting at the IEE building in London and agreed to form a trade association.

An inaugural meeting was held on 11 December 1974 at the offices of Becorit (G.B.) Ltd in Nottingham, where the Council of Gas Detection Equipment Manufacturers (CoGDDEM) was formed. The founding company members were: International Gas Detectors, Becorit (G.B.), Detection Instruments, Draeger Safety, Electrical Remote Control Co., Neotronics Ltd. and Teather Inter-Continental Gas Detection (U.K.). The subscription was fixed at £100 per annum, rules were agreed, Tom Bird of I.G.D. was elected Chairman and Jimmy Farrow of Becorit was elected Vice Chairman. Peat, Marwick, Mitchell and Company were appointed Council Secretary and a programme of publicity was agreed to both attract additional members and make national bodies aware of our existence.

The appointment of Peat, Marwick, Mitchell was a decision that proved to be too expensive. Whilst they did an excellent publicity job, the first year expenditure was £2221, balanced against an income of fees of just £1000. Mrs Goodall, a part time secretary, rapidly replaced PMW and Eric Jones was appointed the second Chairman in early 1977. Despite the financial limitations of those early days, the presence of Becorit (G.B.) as a member was a

significant asset. Becorit subsequently became part of NEI and provided a large hospitality suite which was the venue for the first CoGDDEM AGM. Fifteen people attended the dinner for which Becorit charged only £60 in total, which included one bottle of gin, half a bottle of whiskey, five bottles of white wine, three bottles of red wine, one bottle of port and one bottle of brandy. All who attended agreed that it had been a splendid AGM.

In the second year of its life, CoGDDEM increased its membership by a further two companies: EEV and GMI. Unfortunately, Becorit, having by now acquired IGD, stood down, leaving the total membership at seven. It was decided to hold meetings in London, but the location had to be cheap because of the limited available funds; so through the good offices of George Chuchla of ELREMCO, we were able to use rooms at the National Liberal Club in central London, and later on, meetings were moved to the London Chamber of Commerce and Industry. By 1982 membership had risen to fourteen.

CoGDDEM's Contribution to Gas Detection Standards

One of the prime aims of any trade association is to be influential in the creation of relevant standards. This is important for CoGDDEM, due to the industrial and domestic, safety and environmental monitoring markets in which its members operate.

The first objective of CoGDDEM was representation on relevant British Standards Institute committees. When CoGDDEM was formed, the CEG (Coal, Electricity, Gas) committee was preparing a draft document to be used within BSI to produce a gas detection standard. CoGDDEM obtained representation on BSI committee GSE/29 (later renamed EEL/29) which in due course created BS 6020. Soon, further standards work commenced for toxic gas and domestic flammable gas detectors, again with CoGDDEM representation. CoGDDEM has also been well represented on CENELEC committees where, more often than not, the British standard was used as the draft document for the creation of an EN standard. In recent years ISO has created a standard for flammable gas detection, largely based on EN 50 054-058 which was based on BS 6020, which in turn was based on the CEG document which was the original reason for CoGDDEM. Despite all the activities and the endless hours spent in committee meetings it is of interest to note that the LEL of methane is still not agreed: is it 4.4% or 5% methane?

The last decade has seen tremendous activity in these areas, especially with the changes in standards for Ex-



plosion Protected equipment, such as Intrinsically Safe and Flameproof gas detectors for industrial safety. This commenced with the harmonisation of the British Standards BS5501 series into the EN50014 series, which was essential if Britain was to be able to comply with the ATEX Directive, which came into force in July 2003. As well as covering the design and testing of Hazardous Area products, the ATEX Directive also puts a heavy responsibility on the part of the installer and/or user of the equipment; so it was crucial that CoGDDEM members were fully involved with the implementation of the Directive and its supporting Standards. CoGDDEM supplied experts from its membership to sit on, and in some cases chair the various British and European committees, including L-10, GEL/31, TC31 and their various sub-committees. The more recent implementation of global standards for Hazardous Area equipment through the IECEx scheme has also been helped by the involvement of CoGDDEM members. Tom Bird and John Sonley represented CoGDDEM at standards meetings in the earlier years; in more recent times John, Jonathan Gilby, Jonathan Kane, Eddie Quigley, David Riddle, Jim Sheriff, Leigh Greenham and others carry the CoGDDEM mantle at these exciting meetings. John Saffell represented the UK viewpoint to a USA Federal Committee for domestic CO



detection. CoGDEM representation at North American and Asian standards meetings is a priority: ASTM, NIST and NIOSH participation is already underway or planned.

Alongside these standards, a new series of gas detection performance standards were developed, which are now being widely used as a means of demonstrating the effectiveness of the equipment designed and manufactured by CoGDEM's member companies.

1993 onwards: Environmental Monitoring, Combustion Analysis and Domestic CO

Throughout the life of the Council there has always been keen discussion on widening its scope, increasing its membership and heightening its profile. The original rules restricted membership to manufacturers but were modified to include anyone "active in the business of gas detection", Associate Membership was also introduced and the services of these members in this category has been very valuable.

In 1993 the name of CoGDEM was altered from the original name in which 'EM' stood for Equipment Manufacturers, widening the scope of CoGDEM to include Environmental Monitoring. CoGDEM now includes

members concerned with industrial safety and combustion monitoring, and now also monitoring with environmental pollutants and domestic hazards such as CO.

Performance standards for Flue Gas Analysers have also been developed by British and European committees on which CoGDEM members have diligently served. Indeed, the presence of equipment manufacturers on such committees enables a pragmatic approach to be applied, which may otherwise be lacking, thereby avoiding the publication of Standards that have little value to the user of the equipment.

The market of domestic carbon monoxide detection has expanded rapidly in the last decade, helped by the availability of new, reliable and low cost CO sensor technologies. Domestic CO gas detection has been the sole focus of a second sub-committee. Through members of CoGDEM, our sub-committee is playing a leading role in CO domestic gas detection standards and approvals, covering the performance and testing of such devices, and continues to be influential in the activities of special interest groups such as CO-Gas Safety.

CoGDEM's experts are working on emerging standards including standards for EMC and the functional safety of

programmable equipment, such as gas detectors with embedded software. The published Calibration Guide, which CoGDEM members created in the late 1990s, remains an industry "standard" to this day.

Over the thirty years, since the birth of CoGDEM, the business of gas detection has matured and developed into a significant industry. Technology requirements have expanded in many areas including safety on offshore oil platforms, the Health and Safety at Work Act, domestic CO gas detectors, perimeter monitoring using infrared open path detectors, and new carcinogen legislation for benzene and other organic hazards. U.K. gas sensor and gas detector manufacturers, certification authorities and research establishments have all played a major world wide role in developing the equipment and standards to monitor dangerous gases. CoGDEM has been active in all these areas and looks forward to the future where new and exciting technologies meet the needs of new standards and codes of practice.