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De-phlogistonation - Is this the Final Breakthrough in Fire Prevention?

by

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Only those who work with fire technology on a daily basis, preferably over a couple of decades, will recognise that fire prevention has a fashion component. For reasons generally without much foundation, possibly with the exception of there being a keen and vociferous champion in the background (you do not need any help in identifying most of them) various forms of fire protection, fire detection and fire suppression have come along, each in turn being seen to be the 'best thing since sliced bread'.

Even to the casual reader, National Regulatory Guidance, North or South of Hadrian's Wall, shows that passive fire protection was traditionally the most preferred method of fire control, with great reliance being put on fire walls and fire doors to protect the populace. As an aside - has anybody recognised that Hadrian's Wall was not a fortification, but was probably the first fire wall, designed to prevent fire spreading from England to Scotland because the damned 'Sasenachs' have lower levels of fire resistance in their buildings than the Scots? The insurers also liked the passive approach, but to be on the safe side they added at least 50% to the fire resistance periods and were reluctant to insure anything combustible without a significant premium increase as a further precaution.

Somebody then came up with the idea of filling pipes with water, running them throughout the building and sealing them off with something that melts. The first fashion had been born! Sprinklers.

The insurers thought that these were a great idea and adopted them immediately because experience had shown, not unsurprisingly, that even non-combustible buildings were damaged by fire.

This fashion caught on fast and the insurers even wrote the rules for them. Before long sprinklers were being installed everywhere, for property protection, for reducing damage to businesses, for life safety, to aid fire-fighting, indeed one could not think of a situation where sprinklers were not the solution. They were installed regardless of their distance above the fire, the air movement in the building, whether there was anything to burn or not, sprinklers were, and still are to many, the total panacea. Unfortunately the public never took them to heart, frequently quoting that the water damage will be worse than the fire damage. What do they think the Fire Service do, 'suck' the fire out? However, this view persists, scurrilously propagated by adverts, such as the 'Lynx Effect'. and as a consequence those responsible for fire safety continue the search for the 'holy grail'.

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Gas suppression soon became the new 'sprinklers'. Gas is dry you know; hence no damage from a discharge! Halon, in particular, was the magic gas which could do everything. Obviously Halon preferred confined spaces to work in, but this was not to deter the designer and had not the 'powers-that-be' banned the stuff; one asks how large a space would have eventually become Halon protected. Various other forms of gas have evolved, but none of them have achieved the 'ring of confidence' required by the ultimate users, the public, or their representatives.

Early detection became the next new sensation. Ionisation detectors and rate of temperature rise detectors all required a 'fire' to make them work. Too late! Aspirating detectors, on the other hand, advise the occupants, or the management that something is warming up. Given time to investigate the event evading action can be taken, thereby, preventing the conflagration, without even bothering the Fire Service. Before long, any respectable building could expect to be invaded by a web of samplings pipes. Holes were breaking out in ceilings like giant woodworm casts.

Water mist systems, by using water more sparingly, alleviated the water-damage concerns of sprinklers, and gained instant popularity. They have optimistically been considered for protecting sandwich panel buildings, heritage buildings and even domestic dwellings, and continue to show much promise but cannot achieve the status of a cure-all due to a lack of standards on the subject. The cost of sprinklers was a deterrent to their greater adoption and the fashion of 'domestic sprinklers', the current in-vogue product, has seriously opened the door for a new wave of sprinkler installations, not only confined to domestic applications, but considered anywhere where there is a water supply. Domestic sprinklers are, as a result, becoming as popular as 'patio-heaters'.

All of these systems have come, and most of them have stayed, in one form or another, and for some applications more than for others. They have one major disadvantage, they generally require independent professional guidance if they are to be installed in their most effective manner and to be matched truly to the risk that is to be protected against.

No wonder, therefore, that the fire prevention world is agog with anticipation over the development of the 'de-phlogistonator'.

De-phlogistonators provide an endless supply of de-phlogistonated ¹ air, in which combustion is impossible, and yet the building users should not even notice the difference. A de-phlogistonated air generator that is capable of protecting an office of up to 10 storeys is approximately the size of a chest freezer. To protect a shopping mall the generator would need to be of a similar size to an unmanned lottery ticket booth and could be disguised as such, giving society a double benefit; a safe environment, and being unmanned, removal of the temptation to buy a lottery ticket with the inherently low levels of probability.

Semi-secret trials have taken place in a number of high profile establishments and the initial leaked findings have had eminent scientists 'sucking their breath' in amazement. Previously discredited concepts have suddenly been given renewed credibility; how many times does science have to do that? Positioning of the de-phlogistonator does not appear to be critical as the effect readily diffuses throughout a large volume almost instantaneously, thereby eradicating the need for expensive experts in the design and installation process. Needing

¹ Phlogiston: A (once thought to be) hypothetical substance formally thought to be a volatile constituent of all combustible substances, released as flame in combustion [from Greek, neuter of phlogistos.]

no services, it is easy to install and can be readily moved to another location should there be a change of use. Most of all, it is incredibly cheap to run. The de-phlogistonator is powered solely by vocalised hot air. The more hot air there is available, in theory, the more effective the device can be.

This was confirmed early in the trials when a de-phlogistonator was installed in the BSI Committee Rooms. All committees generated so much vocalised hot air that BSI did not need to implement the national 'no smoking policy', as it soon became obvious it was impossible to light cigarettes anyway. At another of the secret trial sites, the home of the Building Regulations Division of the 'DCLG', it is alleged that the trial was so successful they soon realised that the current Regulatory Guidance book, Approved Document 'B', would be redundant and could be shredded once there was a 100% coverage of de-phlogistonated air. At the last minute, however, it was realised that de-phlogistonation could not work in monasteries and convents where the inmates had taken a vow of silence due to the lack of hot air. Despite the restricted audience AD 'B' is still expected to be a major seller as it will be the only regulatory related document produced in illuminated manuscript in line with its new audience. Whilst being written in functional terms, prescriptively it will probably require all candles to be out by 22.00 hrs.

A spokesman on behalf of the CBI stated; "this is the greatest news our members could ask for. We have always believed that our members have had to pay too much for the fire safety in our buildings and the de-phlogistonator proves it. Not only that, but we will no longer need to employ these so called fire consultants who make things unnecessarily complicated. At last our members may start to see a profit." Shares in the retail sector rose dramatically after the statement.

The Local Authority, Building Control view was given by Miss Fourboys (42), an attractive Building Control advisor. She stated, "This will have a major impact on our profession and if the de-phlogistonator is as good as trials suggest, and it proves that all of this fire door technology and fire stopping gizmo's are a waste of time, we could see the greatest exodus of people from the Building Control field since the advent of Approved Inspector".

A spokesman for the Approved Inspectors stated, "What do we do now?"

At the time of going to press it has just been learnt that production of the de-phlogistonator has been temporarily halted due to a last minute problem experienced at the most high profile of the trial sites, the Houses of Parliament. This was always seen to be a high risk site because it was recognised that if anywhere were to be capable of generating an excess of dephlogistenated air this was it, and if there were to be any side effects they would be expected to be shown up in Westminster. This fear proved to be unsubstantiated and an overload of vocalised hot air did not appear to cause a problem. What has caused a problem is an 11th hour finding that the de-phlogistonator differentiates between hot air and 'oxcrement' [bull shit] and if there is an excess of the latter, it appears that the phlogisten remains, but the oxygen is reduced. It was thought that this was the reason why their Lordships and other Honourable Members were falling asleep in the Chambers (who's kidding!).

However, if oxcrement [bull shit] could have that effect it could be serious, and therefore, new installations have been halted whilst the phenomena is investigated. In the meantime, those responsible for public safety will need to select a solution from the list of 'fashion products' still available, taking on board the best technical expertise and advice that they can obtain, in order to maximise public safety at a cost that the community can afford.

Will the technical problems encountered with the de-phlogistinator be resolved? Don't hold your breath!

Postscript

If you are one of those who wish that there was a 'de-phlogistinator', because your fire safety needs are beginning to dominate your design or appear to be frustrating your project from even coming to fruition, we suggest that you contact ourselves (International Fire Consultants Ltd) as a matter of some urgency.

Independent professional guidance is available from our unique team of more than 20 fire safety engineers, all experts in their branch of fire science, who are available to bring your project to fruition in a timely and cost effective manner.

You've tried the rest; now try the best, IFC Group - Pass this to a colleague.