

COMPANY NAME

DATE

For the attention of – NAME

PROJECT NAME – Use of FirePro Condensed Aerosol Fire Suppression Technology.

Thank you for your enquiry regarding the above project.

Firstly, please see an introductory presentation for the FirePro (the fire suppression product) and FirePro UK [here](#).

FirePro has two key advantages over others, 1) It is the only LPCB certificated condensed aerosol product in the world, and 2) It is sold with a 36-month guarantee from date of sale. There is no other similar product that can compete. FirePro is all electrical, environmentally friendly, and has a 15-year life cycle. There is no requirement to sacrifice valuable footprint for storage of pressurised cylinders, or installation of over pressure venting required. Room integrity testing is not mandatory however, please see our Q&A on this subject [here](#). FirePro technology has various pre-requisites based on compliance with BS EN 15276, namely correct system design, installation, commissioning and handover.

It is incumbent on the system installer to a) only use suitably competent Individuals that have been trained by FirePro UK within the last 24 months, b) to comply with all relevant applicable Standards including BS EN 15276-2, and c) to ensure that simulation lamps are used as a dummy load for testing and commissioning.

As we understand that the rooms that you have requested the use of FirePro fire suppression may contain sensitive electronic equipment, please read and understand the following as well as advise your client of the same.

Use of FirePro in rooms with Sensitive Electronic Equipment.

In the event of fire, in accordance with the system design intent, the purpose of the fire suppression systems is to suppress fire, in which case any protected equipment exposed to the products of combustion will be at risk of irreparable damage. When FirePro is activated, a dry potassium based, micro particulate is released into the atmosphere and interrupts the molecular structure of a fire. (see below Fig 1).

Like all suppression mediums, management procedures for pre & post discharge requirements are defined in the [manufacturer's operation and maintenance manual](#). FirePro requires timely post discharge extraction, normally via existing extract systems, (and not necessarily dedicated). Sensitive electronic equipment such as computers, hard drives, and the like, will be exposed to the particulate via air inlet fans. **The particulate is hygroscopic, therefore the risk of irreparable equipment damage cannot be avoided, so we state that the proposed usage of FirePro for this application is made only with full acceptance of the risk and terms of [our disclaimer](#).** The 'risk trade off' scenario with FirePro is far less by comparison to water-based systems.

To mitigate (not eliminate) the risk of damage caused by the particulate, a series of client SOP's may be developed to include for several levels of automatic and manual intervention. A Fire strategy may include for the manual only release of the suppression system, (and not automatic), delivered by well trained staff following robust in-house SOP's. Additional SOP's may also be developed to mitigate (not eliminate) the risk of inadvertent suppression system release without a fire. We are willing (and able) to assist the project team in this regard as required.



FirePro Extinguishing Agent Action

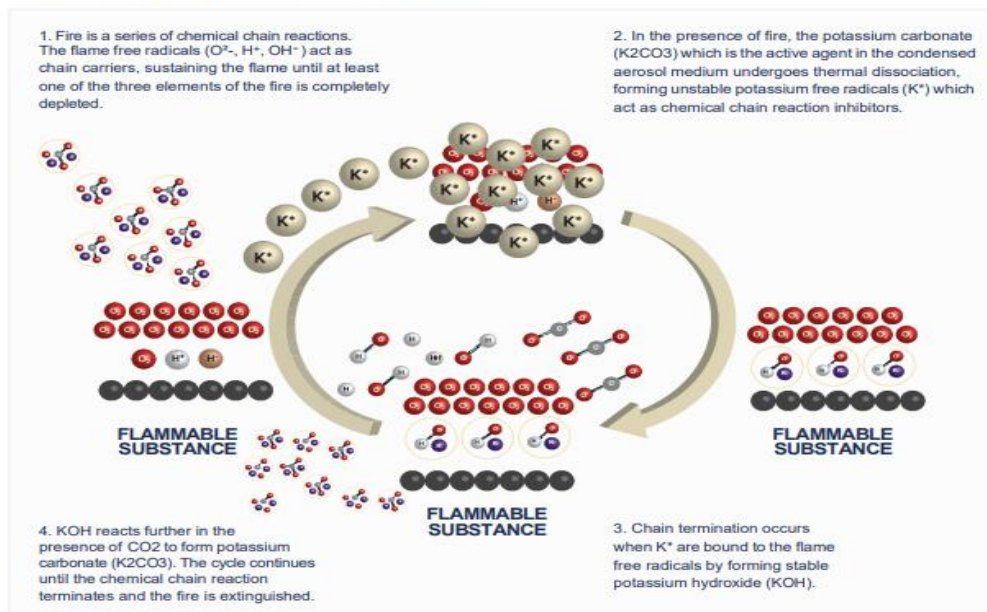


Fig 1. Explanation detailing how FirePro fire suppression changes the molecular structure of a fire.

Use of FirePro in rooms with Diesel Generators or Other Combustion-Air-Breathing Plant.

Where the protected enclosure houses a diesel generator, or other plant that draws in air for combustion, please be aware that the FirePro particulate (see above) may be drawn into the engine's air intake if the plant continues to run during and after discharge, with a resulting risk of filter blockage, abrasive wear to internal components, and potential engine damage. **As with sensitive electronic equipment, this risk cannot be eliminated, only mitigated, and use of FirePro in such applications is made only with full acceptance of the risk and terms of [our disclaimer](#).**

To mitigate this risk, any diesel generator or similar combustion-air-breathing plant located within, or drawing combustion air from, the protected enclosure must be shut down prior to, or immediately upon, activation of the FirePro system. This may be achieved via an automatic shutdown interlock between the fire detection/release circuit and the generator's control panel, or by a documented manual shutdown procedure carried out by trained site personnel as part of the site's fire strategy. As with sensitive electronic equipment.

Sample Fire Strategy - Mitigation of risk of exposure to sensitive electronic equipment.

The following is a sample, non-exhaustive fire strategy, placing emphasis on the early warning of a fire and subsequent actions by trained personnel in a response that is appropriate to the extent of the alarm at that time.

The following schedule of enclosures contains sensitive electronic equipment. The enclosures are suitably (30/60 minute) fire rated and/or compartmented. Access to the rooms shall be via suitable and secure access control systems only. Permits to work and drill in the rooms shall be managed by the client, and any enclosure penetrations shall be advised, recorded and certificated. Reinstatement works shall be by suitably competent persons only.

The protected rooms shall be equipped with aspirating early warning smoke detection system, point smoke and heat detection (optional - linear heat detection cable for in cabinet monitoring) and a FirePro condensed aerosol fire suppression system.

The aspirating early warning detection systems are installed to monitor return air (also internal in-cabinet air sampling points). The alarm configuration level 1 & 2 shall create a local alert only with no general alarm. Local alerts shall signal the internal fire response team should attend within the prescribed time to investigate and take appropriate action. Where the cause is identified, appropriate actions must be taken - where cause of activation is not identified, the system shall be manually monitored to identify the any patterns or trends for at least a 60-minute period, then appropriate action taken based on findings.

Should the system trigger level 3 fire alarm straight away, the fire alarm system shall commence an xx-minute grace timer to allow the fire response team to investigate and establish the appropriate action to be taken (i.e. investigate further or provided it is safe, use portable fire appliances, dependent on the scale and nature of the fire). Should it not be safe to fight a fire, then the enclosure doors should be shut, and the manual fire suppression system should be released by operation of a key operated yellow switch marked 'Fire Suppression System Release'.

At the elapse of the timer or the activation of the suppression release key switch (whichever occurs first) Fire & Rescue services shall be automatically / manually alerted.

In the event of a key switch release operation, the audible and visual warnings shall activate, a 30-second countdown timer shall commence, all air conditioning shall shut down, and, where possible, power to the protected equipment shall be isolated. All dampers shall close, and any apertures within the protected space shall seal. The countdown timer may be cancelled by operating the 'Abort' key switch. Once the timer has elapsed without interruption, the FirePro fire suppression system shall activate.

Appropriate induction and instructions for all stakeholders shall be provided, together with instructions for Fire & Rescue Services not to use water in rooms containing FirePro fire suppression systems.

Once the system has discharged, only the Fire & Rescue Services shall confirm when it is safe to re-enter the room, after which the equipment may be removed for damage assessment and repair or replacement.

Sample Fire Strategy Ends.



Fig 2 – Corrosion / Discolouration caused by prolonged (12 weeks) exposure to condensed aerosol without any post discharge actions.

As requested, we have included this image to emphasise that, after discharge, the post discharge actions should be attended to as soon as it is safe to do so, ever bearing in mind the terms of our disclaimer regarding the use of the product with sensitive electronic equipment.

I hope this demonstrates our pragmatic, transparent approach to the use of and management of the FirePro product, which I trust this meets with your approval and your clients.

If there is anything further you require, please do let me know, and we shall await your further instructions.

Kind regards,

Author Name

Author Title

FirePro UK Ltd

