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HS Broadcast 05 – Dry Powder Extinguisher

A recent high profile court case and changes to the applicable British Standard for fire extinguishers have had an impact on the industry's view of dry powder extinguishers. A contractor had provided dry powder extinguishers which were set off in a church by vandals creating an acidic mixture.

Various substances are routinely used in dry powder extinguishers but all share the same disadvantage. The fine residue drifts through the air settling on surfaces. This has the potential to cause permanent damage to materials, stock and sensitive items, including electrical equipment.

In 2012 a new version of the British Standard, involving extinguishers, was published. It introduced new guidance on the application of dry powder extinguishers. It states that these are still the best choice for fires which involve uncontained flammable liquids. The document also endorses their use in situations where there may be live electrical conductors. However, some new warnings were added.

There are a couple of examples of when the dry powder extinguisher may not be suitable;

1. Firstly, in the past dry powder extinguishers may have been placed in kitchens, but the guidance is very clear that this is not appropriate. Only Class F (a special wet chemical) should be available if there is a risk of fat or cooking oil fires. Non-Class F extinguishers may make a fat fire worse; therefore, if you have a dry powder extinguisher in a kitchen where there could be an oil or fat fire you must remove it from the vicinity to prevent it from being used in error.

2. The second warning relates to the immediate effects after the extinguisher is discharged. There is a sudden reduction of visibility and the fine powder in the air can impair breathing. The British Standard states, "For this reason, powder extinguishers should generally not be specified for use indoors, unless mitigated by a health and safety risk assessment".

Powder extinguishers are still a good option for many larger industrial buildings, as the powder covers several types of fire risk and is safe on electricity. However, you may believe that its use will be unsafe in a confined area or be concerned about potential damage if maliciously discharged.

So please have a look at your extinguishers and discuss this with your appointed contractor as;

1. Dry powder extinguishers in an office are probably inappropriate and should be changed.

2. You may need more than one extinguisher to provide the same cover - typically a foam or water type alongside one containing carbon dioxide.

The general view is that dry powder extinguishers are generally unsuitable for indoor use. The fine powder creates visibility problems and can lead to significant damage. Avoid their use in offices, confined areas and in locations where stock etc. could be damaged.

AT/DM