

Identifying a System “At Risk”

Preventing Fires in Kitchen Ductwork October 2013



A major fire outbreak that occurred at a UK restaurant took almost 12 months to reopen and a further 3 years to settle the claim.

Paul Downing, expert witness and an affiliate member of the Building & Engineering Services Association (B&ES), mentions the incident serves as a timely reminder to restaurant owners and managers that they must carry out regular cleaning of their ducted extraction systems.

The ducted ventilation system which serves a frying or canopy range system is designed to extract smoke, grease vapours, steam and cooking residues from the kitchen out into the atmosphere.

If these are not cleaned regularly, grease and debris can quickly build up creating a very serious fire hazard, which in turn can cause thousands of pounds worth of damage, loss of earnings and often lengthy insurance claims.

The fire is alleged to have started in the range and ignited in the ducting, which escalated to other areas of the buildings structure.

It's not the only incident in recent years where grease-laden ducts have caused fires.

In fact, it's estimated that 80% of kitchen extract ventilation systems are never cleaned and are, therefore, operating in a hazardous condition. What's more, 70% of fires in commercial kitchens are said to originate in faulty ventilation due to the buildup of fat and grease. (Source, London Fire Brigade/Fire & Rescue Services)

It's something that a lot of people in the trade put to the back of their minds, explains Paul *"It's a case of out of sight, out of mind People are more concerned with the hygiene in their premises, the prep areas for example that they can see. But what they often don't realise is that the buildup of years' worth of grease inside that ducting, or even just months' worth in some cases, can pose a real fire risk."*

Other risks

although fire is the main concern associated with grease contaminated ducting, there are other risks too. For example they pose the ideal breeding ground for bacteria. Fortunately, because of the temperatures that ducting tends to get up to, much of this microbial growth is killed off, but it's when systems are not switched on that there is the potential for it to spread.

There's also the issue of ventilation efficiency as grease build up inside the ducting can compromise the efficiency of the fan, as Paul explains further: *"Inside ducting systems are catchment areas, which get more heavily coated in grease than others. This can put resistance on the fan which will affect its performance. You then have a double whammy as you have the fire risk from the grease build up as well as unwanted smells and odours accumulating in the restaurant."*

It is a statutory requirement to have a building risk assessment carried out and ideally this should include the kitchens ventilation system which will ultimately determine how regularly the ducting should be cleaned. This at the very least will recommend a clean every 12 months, but depending on the type and volume of cooking and the buildup of grease deposits, then it could be as often as every three months.

Paul stresses that not only is it important to undertake a risk assessment and instigate regular cleaning, but it's also vital to employ a specialist contractor to carry out the work as ducting systems often pose access difficulties.

“A lot of people think it is pretty easy, but it needs to be carried out by professionals. Often they will need access to the ducting and if that’s hidden they will need to put in access panels. Again this is specialised work that must be carried out by operatives who know what they are doing.”

Once the extraction and ducting has been cleaned, a certificate of compliance should be issued together with a post clean report containing photographs of the ducting before and after cleaning – some companies these days’ supply CCTV images. In the event of a fire, this is the first documentation insurance companies will want to see before going ahead with a claim. Likewise, anyone applying for a new policy will generally find their insurance refused unless they can meet standard duct cleaning requirements.

Reputable company

Finding a reputable company to carry out the work isn’t always straight forward as there is no central database of engineers qualified to carry out the work, say for example as there is with gas engineers and the Gas Safe Register.

However, this is due to change as Paul explains: *“B&ES have introduced a programme called the Green Book Training Scheme. It carries a certificate so that when personnel have carried out the course they become a qualified duct cleaning operator. In future, insurance companies will ensure that clients only use duct cleaning companies that have been on the training scheme. It’s still in the early stages, but it will happen.”*

For now, the advice is to ensure kitchen ventilation systems are included in a buildings risk assessment in compliance with the Regulatory Reform Fire Safety Order (RRFSO) and the specific terms associated with insurance conditions and warranties relating to ductwork cleaning frequencies.

Paul Downing is principal consultant at Compliance (Air & Water) Ltd. For further related information go to www.complianceairandwater.com or for the use of a reputable Green Book Trained B&ES approved cleaning contractor contact info@omplianceairandwater.com